1963-10

1962 INDEXES

- JOURNALS (Proceedings)
- TRANSACTIONS
- CIVIL ENGINEERING

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INDEXES TO 1962 ASCE PUBLICATIONS

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FOREWORD

ABSTRACTS AND INDEXES FOR PROCEEDINGS, VOL. 88, 1962

This index provides a guide to material published in the ASCE Proceedings during 1962. The abstracts indicate what general information can be found in the paper in question. The author index includes the names of authors, coauthors, discussers, and chairmen of the committees preparing the several reports. Subject headings have been restricted as follows:

1. Each paper is listed under one primary heading suggested by the name of the Journal in which the paper appeared.
2. A second listing of a paper is made for further refinement of indexing. In the second listing, an attempt is made to index papers of interest to several Divisions under the headings suggested by the Division names.

Discussions can be traced by referral in the author index to the name of the senior author of a paper. Discussion over a period of time can be traced in this fashion until the closing discussion is located.

Typical abbreviations used herein are: Dsc for "discussion," Clo for "closing discussion," Corr for "corrections," and Chmn for "chairman" of a committee submitting a report.

Each entry includes information, in parentheses, that can be used to locate an item that has been indexed. For example,

(Aug SM4:109:3232)

would indicate a paper published in the August 1962 Journal of the Soil Mechanics and Foundations Division on page 109, as Proceedings Paper 3232.

In the author index the original entry for a paper is supplemented by information concerning the discussion and closure, if applicable. When discussion is published of a paper from a prior year, the original entry is repeated, except that the year of publication is indicated.

Items indexed are identified by months as follows:

MONTH	PAPER NUMBERS	JOURNALS
January	3033-3044	CO1 (Construction), HY1 (Hydraulics), SA1 (Sanitary Engineering).
February	3045-3068	EM1 (Engineering Mechanics), SM1 (Soil Mechanics and Foundations), ST1 (Structural), WW1 (Waterways and Harbors).
March	3069-3087	HY2 (Hydraulics), IR1 (Irrigation and Drainage), SA2 (Sanitary Engineering).
April	3088-3108	EM2 (Engineering Mechanics), SM2 (Soil Mechanics and Foundations), ST2 (Structural).

MONTH	PAPER NUMBERS	JOURNALS
May	3109-3153	HW1 (Highways), HY3 (Hydraulics), PO1 (Power), PP1 (Professional Practice), SA3 (Sanitary Engineering), WW2 (Waterways and Harbors).
June	3154-3183	EM3 (Engineering Mechanics), IR2 (Irrigation and Drainage), SM3 (Soil Mechanics and Foundations), ST3 (Structural).
July	3184-3209	HY4 (Hydraulics), PO2 (Power), SA4 (Sanitary Engineering).
August	3210-3254	AT1 (Aero-Space Transport), CP1 (City Planning), EM4 (Engineering Mechanics), SM4 (Soil Mechanics and Foundations), ST4 (Structural), WW3 (Waterways and Harbors).
September	3255-3291	CO2 (Construction), HW2 (Highways), HY5 (Hydraulics), IR3 (Irrigation and Drainage), PO3 (Power), SA5 (Sanitary Engineering).
October	3292-3309	EM5 (Engineering Mechanics), SM5 (Soil Mechanics and Foundations), ST5 (Structural).
November	3310-3338	HY6 (Hydraulics), SA6 (Sanitary Engineering), SU1 (Surveying and Mapping), WW4 (Waterways and Harbors).
December	3339-3378	EM6 (Engineering Mechanics), IR4 (Irrigation and Drainage), PO4 (Power), SM6 (Soil Mechanics and Foundations), ST6 (Structural).

1962 PROCEEDINGS ABSTRACTS

January

Journals: Construction, Hydraulics, Sanitary Engineering.

3033. Construction Economy Through Contract Administration, Progress Report of the Special Committee of the Construction Division of the San Francisco Section. (CO) Results of a questionnaire concerning current construction management practices are presented and evaluated. The survey was prepared as part of an investigation of construction costs and overall economy.

3034. Construction Planning of Mammoth Pool Project, by George W. Saul. (CO) The construction industry must stress the importance of sound, practicable planning in order to continually improve efficiency and reduce costs. Establishment of an organized job planning program that brought about a successful, large construction project is summarized herein. Advocated and examined is the one engineer-constructor having responsibility for a turn-key job from start of design to completion of construction, and the resulting substantial reduction of overall costs is shown.

3035. Laminar-Turbulent Transition in Waved Tubes, by Alan D. K. Laird, Russell K. Brunner, and Kenneth E. Haughton. (HY) Several details of the well-known problem of laminar flow of a fluid through a circular tube and transition to turbulent flow need explanation. The effects of tube flexibility, oscillations of the tube walls, and the shape of the wall are among the least understood. The effects of the wave-length of wave shaped walls of glass tubing are examined herein.

3036. Natural and Forced Convection Solar Stills, by Werner N. Grune, Ross B. Hughes, and T. Lewis Thompson. (SA) The principal characteristics and properties of solar distillers for the conversion of salt water are briefly presented. Both shallow and deep basin natural convection are examined. The forced convection, deep basin still is shown to possess inherent advantages of heat utilization and recovery, which is supported by experimental data.

3037. Design and Construction of Tuscarora Power Plant Bridge, by Charles C. Zollman, Walter Podolny, Jr., and Eric L. Dagseth. (CO) Presented is a description of the design and assembly-line method of construction of the Tuscarora Power Plant Bridge, in which extensive use was made of the combination of precast lightweight concrete plank and poured-in-place stone concrete.

3038. Velocity Concentrations in Stratified Fluids, by Robert R. Long. (HY) Velocity concentrations or "jets" occur frequently in fluid systems of many kinds. The examples presented herein are systems in which vorticity is present or is generated by density variations. Data collected through theoretical and experimental studies are presented.

3039. Diffraction of Waves by Semi-Infinite Breakwater, by R. L. Wiegel. (HY) The exact theory of the diffraction of water gravity waves by a semi-infinite (one arm) breakwater in water of constant depth is put in a more useful form for the case of waves incident at any angle between 0° and 180°. Graphs and tables for use by the practicing engineer are included. These may also be used as an approximate solution for the case of a detached breakwater.

3040. Philosophy of Hydraulics, by Bernard Le Méhauté. (HY) The various

branches of hydraulics are analyzed in order to relate them to the other fields of human thought. Intuition and inductive and deductive logic are the tools of the hydraulic engineer in experiments as well as in theory. Each of these methods has its own limitations that depend on the particular problems to be studied. The importance of hydraulics in man's existence is also emphasized.

3041. Titan ICBM Hardened Facilities, by Marvin J. Kudroff. (CO) As an integral part of the Titan weapon system, structures and equipment required to support this ICBM in the first "hardened" environment in the United States are described. Functional relationships, problems associated with shock isolation and attenuation, and construction techniques and costs of each structure are identified.

3042. Discussion of Proceedings Papers 2358, 2483, 2639, 2759. (CO) Robert T. Howe on 2358. John W. Fondahl on 2483. A. S. Robinson on 2639. Thomas D. Larson on 2759.

3043. Discussion of Proceedings Papers 2820, 2860, 2862, 2874. (SA) Arun Kumar Deb on 2820. V. C. Behn, W. F. Ames, and K. Keshavan, W. E. Howland, and H. A. Hawks on 2860. Gilbert H. Dunstan on 2862. Jean L. Vincenz, Desso T. Mitchell, Theodore E. Winkler, and John R. Snell on 2874.

3044. Discussion of Proceedings Papers 2449, 2469, 2652, 2653, 2713, 2763, 2817, 2823, 2825, 2849, 2851, 2854, 2865, 2866, 2867, 2871, 2935, 2936. (HY) David L. Muss on 2449. R. D. Goodrich on 2469. Alan D. K. Laird, Charles A. Johnson, and Robert W. Walker on 2652. A Thiruvengadam on 2653. Iury L. Maytin on 2713. R. C. Kolf and W. L. Reitmeyer on 2763. Harry F. Blaney on 2817. Herman J. Koloseus, Ralph W. Powell, and Dean F. Peterson, Jr., on 2823. G. T. Orlob on 2825. R. M. Advani, Cornelius G. S. Shih, and J. Kerr on 2849. N. Rajaratnam, Subir Kar, and H. I. Hamid on 2851. R. B. Hickok on 2854. Max Kurtz on 2865. E. M. Laurenson, A. Preissmann, and J. A. Cunge on 2866. J. W. Johnson on 2867. Daniel Dicker on 2871. Adolph A. Sutko on 2935. Edward J. Low on 2936.

February

Journals: Engineering Mechanics, Soil Mechanics and Foundations, Structural, Waterways and Harbors.

3045. Critical Buckling Loads for Tapered Columns, by James M. Gere and Winfred O. Carter. (ST) Formulas and graphs for determining critical elastic buckling loads of uniformly tapered columns having wide flange, box section, and other cross-sectional shapes are examined. Columns with pinned ends, fixed-free ends, fixed-pinned ends, and fixed ends are also considered.

3046. Hurricane Studies of New York Harbor, by Samuel Gofseyeff and Frank L. Panuzio. (WW) Results are presented of a historical study of hurricanes, including frequency of occurrence, maximum experienced tide elevations, and storm surges; of analytical prediction of probable hurricane tides; and of an appraisal of the damage and hazard from possible inundation to 15-ft above mean sea level. Possible remedial measures are presented.

3047. Overhaul of Locks in the Panama Canal, by William A. Carter and Robert D. Brown, Jr. (WW) Described herein is the new maintenance concept which, for practical purposes, will convert the Panama Canal, after 1964, from a one-lane to a two-lane waterway.

3048. Erosion of Isles Dernieres and Timbalier Islands, by Chester A. Peyronnin. (WW) An erosion-control study has been made of Isles Dernieres and Timbalier Islands off the Louisiana coast. The islands are fringe remnants of old deltaic formations. No protection or preservation was found economically feasible, but the study provides an interesting example of the destruction of deltaic fronts.

3049. Influence Lines for Fixed Symmetrical Arches, by Prakash Desayi. (ST) This study is concerned with the simplification of the rigorous mathematical analysis of fixed symmetrical arches that are encountered in practical design. The numerical or graphical methods presently used are time consuming. The procedure presented here, wherein the deflections of the required elastic line are found by applying the relaxation method, is simpler and quicker. The procedure is illustrated with a worked example.

3050. Berthing and Mooring Forces, by Glenn B. Woodruff. (WW) The design of facilities for mooring supertankers in locations subject to wind, current, and waves requires an estimate of the mooring and berthing forces. The author presents an analysis of the data available to him in the form of empirical equations.

3051. Displacements of Circular Rings with Normal Loads, by Roy Levy. (ST) The displacement coefficients are given for six separate cases of loading. By superposition of these cases, a variety of problems may be treated. The method of obtaining these coefficients, using the differential equation, is explained.

3052. Moments and Free Vibrations in Curved Girder Bridges, by Hiroshi Yonezawa. (EM) Exact and approximate solutions for orthotropic plates are obtained for static loads and free vibration, and are applied to the analysis of curved girder bridges. Numerical results are compared with those of elementary curved beam theory.

3053. Design of Frames with Deformation the Prime Criterion, by Leonard Kelman Stevens. (ST) The concept of adopting serviceability under working load, rather than safety as regards overload, as the prime consideration in design of mild steel frames is advocated. Designs should primarily satisfy given deformation criteria.

3054. Analysis of Circular Arches on Elastic Abutments, by K. V. Swaminathan. (ST) A set of non-dimensional parameters are developed to compute the stresses in circular arches on elastic abutments. Using the geometrical data of the arch, a simple, rapid method to predict the suitability of the arches for arch dams is explained.

3055. Critical Buckling Load on Large Spherical Shells, by Bendt W. Wedellsborg. (ST) Critical buckling load for large spherical containers, such as water-tanks, hortonspheres, vapor containers, containment vessels for nuclear reactors, and so forth, has been computed, counting the effect of local flattened areas.

3056. Effect of Local Loss of Support on Foundation Design, by F. E. Richart, Jr., and P. Zia. (SM) A local subsidence eliminates soil support beneath part of a foundation. The theory of elastic subgrade reaction was used to study beams and slabs that span gaps in the elastic subgrade.

3057. Variational Considerations for Elastic Beams and Shells, by Eric Reissner. (EM) Variational theorems for stresses and displacements of curved shells and beams, boundary conditions for shells with edge loads applied through edge beams, and contracted boundary conditions for the determination of interior (membrane and bending) solutions without consideration of edge zone bending are presented.

3058. Mechanical Bypassing of Littoral Drift at Inlets, by George M. Watts. (WW) An examination of general processes of littoral drift movement at uncontrolled and controlled coastal inlets is presented. Principal factors that should be evaluated when mechanical bypassing of drift past an inlet is considered and general techniques of, and types of plants used in bypassing operations are examined.

3059. Post-Buckling Strength of Wide-Flange Beams, by George C. Lee and T. V. Galambos. (EM) Four experiments on laterally braced steel wide flange beams are described, and results and conclusions concerning the effect of lateral and local buckling are presented.

3060. Discussion of Proceedings Papers 2960, 3028. (EM) George W. Housner on 2960. E. F. Mansur on 3028.

3061. Discussion of Proceedings Papers 2681, 2746, 2794, 2828, 2878, 2881, 2885, 2902, 2905, 2965, 2971. (SM) K. S. Lane and R. G. Fehrman on 2681. Ronald F. Scott on 2746. Thomas B. Kennedy on 2794. Robert V. Whitman on 2828. C. M. Cockrell on 2878. B. V. Ranganatham on 2881. Pablo Girault, William D. Finn, and N. D. Nathan on 2885. Sidney M. Johnson, Philip P. Brown, and B. N. Hoffmaster on 2902. R. L. Nordlund, Robert D. Chellis, and Claude A. Fetzer on 2905. K. E. McKee on 2965. Roger J. M. DeWiest on 2971.

3062. Concrete for Shielding Nuclear Radiations, by Harold S. Davis. (ST) Various types of heavy aggregate and concrete are described with reference to their physical and nuclear shielding properties. Behavior of concrete at normal and high temperatures is considered.

3063. Stabilization Works on the Savannah River, by W. J. Wall. (WW) The problems and proposed solutions in developing the 9-ft Savannah River Navigation Project are summarized. The open-channel control structures and improvements are described.

3064. Limit Design of Crossed Steel Beams, by Aron Zaslavsky. (ST) The limit design of a symmetrical floor system of crossed prismatic steel beams by the simple plastic theory neglecting torsional rigidity is presented. Collapse mechanisms of the floor beams are determined and represented by means of "collapse lines."

3065. Sea-Level Rise as a Cause of Shore Erosion, by Per Bruun. (WW) The paper attempts to relate the phenomena of the slow and irregular rise of sea level and the erosion on most seashores built up of alluvial materials.

3066. Discussion of Proceedings Papers 2643, 2674, 2704, 2843, 2879, 2903, 2956, 2970, 3021. (ST) Frank L. DiMaggio on 2643. James Michalos and Charles Birnstiel on 2674. Chin Fung Kee on 2704. Richard J. Newson on 2843. George S. Vincent on 2879. O. C. Zienkiewicz on 2903. Max Kurtz on 2956. George Pincus on 2970. William Zuk on 3021.

3067. Steel Design Criteria for Nuclear Applications, Progress Report on the Task Committee on Structural Materials in Reactor Design of the Committee of Nuclear Structures and Materials of the Structural Division. (ST) Steel design criteria for elastic-plastic action for critical components of nuclear plants are presented. The effects on the strength of steel of phenomena such as mechanical and thermal loads are correlated.

3068. Discussion of Proceedings Papers 2590, 2658, 2744, 2807, 2821, 2875, 2876, 2877, 2883. (WW) P. Danel, E. Chapus, and R. Dhaille and 2590. James W. Dunham on 2658. Harry S. Perdikis on 2744. R. B. Peck and M. T. Davisson on 2807. Charles L. Bretschneider, W. J. Pierson, Jr., Hans Walden, and Robert Gelci on 2821. John Elliott George Palmer on 2875. Harland C. Woods on 2876. David Hendrickson on 2877. Ray E. Holmes, Charles E. Behlke, Harold D. Pritchett, and Per Bruun on 2883.

March

Journals: Hydraulics, Irrigation and Drainage, Sanitary Engineering.

3069. Unit Hydrograph Characteristics for Sewered Areas, by Peter S. Eagleson. (HY) Hydrographs of measured storm sewer outflow from urban areas of up to 7.5 sq miles are analyzed. The characteristics of the hydrographs are correlated with the properties of the sewers and drainage basins in order to permit construction of synthetic unit hydrographs for other unmeasured sewered areas.

3070. Sediment in Small Reservoirs from Urbanization, by Harold P. Guy and George E. Ferguson. (HY) Urbanization activities may cause sedimentation in small reservoirs, as noted through a study of deposition in Lake Barcroft near Washington, D. C. The sedimentology processes in urbanization areas are found to be similar to but more difficult to evaluate than those in rural areas.

3071. Hydrologic Design of Culverts, by Ven Te Chow. (HY) A simple, practical method is presented to determine peak discharge from small rural watersheds used in design of waterway openings of culverts or other small drainage structures. A design chart is given for

small watersheds of less than 6,000 acres under climatic and physiographic conditions in Illinois.

3072. Translations of Foreign Literature on Hydraulics, Fourth Progress Report of the Task Force on List of Translations of the Committee on Hydromechanics of the Hydraulics Division. (HY) Presented is the fourth of a series of reports designed to bring to hydraulic engineers an up-to-date listing of translations of foreign literature on hydraulics.

3073. Physiological Aspects of Water Quality, Thirty-second Progress Report of the Committee on Sanitary Engineering Research of the Sanitary Engineering Division. (SA) The conference reported was organized to stimulate research interest in the physiological aspects of certain chemical constituents of water. The intent was to focus attention on existing and needed knowledge about the effects of minerals, trace elements, insecticides, and organic substances in potable water.

3074. Analog Models for Flood Control Systems, by J. A. Harder. (HY) The success of applying analog model techniques to tidal flow channels has led to the extension of the technique to the simulation of flood control systems. The similarity relationships for long period flood waves are derived. Methods for the simultation of the channel sections are described.

3075. Advances in Sludge Disposal in the Period from October 1, 1954, to February 1, 1960, Progress Report of the Subcommittee on Sludge Disposal of the Committee on Sewerage and Sewage Treatment of the Sanitary Engineering Division. (SA) This report relates to matters of sludge disposal: Pumping; thickening; sand beds; lagoons; digestion; gas utilization; elutriation; vacuum filtration; drying; incineration; use as fertilizer and soil conditioner; disposal at sea; by-products; and special processes. Continual efforts are being made to reduce the operational problems and costs of this phase of sewage treatment.

3076. Hydraulics of Single Span Arch Bridge Constrictions, by P. F. Biery and J. W. Delleur. (HY) A series of model tests were made on circular arch constrictions with no skew, no eccentricity, and no entrance rounding. A generalized relationship between the backwater ratio, the Froude number, and the channel opening ratio was found to hold for all constrictions geometries.

3077. Contra Costa Energy Dissipator, by S. Russell Keim. (HY) The laboratory development of a self-cleaning, self-draining, simply constructed, low-cost culvert outfall energy dissipator is described. A rational procedure for design of this dissipator is presented.

3078. Drainage Wells in Leaky Water-Table Aquifers, by Mahdi S. Hantush. (HY) Flow formulas are found for a well draining a water-table aquifer that is replenished by vertical percolation. Expressions and a table for calculating the well discharge and spacing, and the time required to lower the water table to a desirable elevation are obtained.

3079. Turbulent Diffusion and the Reaeration Coefficient, by Peter A. Krenkel and Gerald T. Orlob. (SA) An investigation of the theoretical aspects of the transfer of oxygen into flowing water is presented and experimental results relating the gas transfer process to modern concepts of turbulent flow are shown. A method for estimating the reaeration coefficient using easily obtainable hydraulic parameters is proposed.

3080. Legal Considerations in Water-Resources Planning, by Eugene T. Jensen. (SA) Presented is a review in non-legal terminology of the respective roles of Federal, state, and local agencies in water-resource planning. The influence of Federal and state laws and the judicial systems of the several states on effective water-resource planning is stressed.

3081. Back Scour During Floods Above Pits and Basins, by Paul Baumann. (HY) Movement of bed load and back scour have, classically, been approximated from the velocities at the bed of a stream. Drag, defined as the tangential weight component of water, is treated herein as the moving force, and the volume of bed load transported thereby is estimated by the DuBoys method.

3082. Advances in Primary Treatment, Progress Report of the Subcommittee on Primary Treatment of the Committee on Sewerage and Sewage Treatment, of the Sanitary Engineering Division. (SA) Summarized herein, from an engineering viewpoint, are the primary elements of sewerage treatment that have been made in the past decade (1952-1962). The subjects covered include screenings, grit removal, preaeration, flotation, sedimentation, chlorination, and flow measurement.

3083. Evaporation from Pyramid and Winnemucca Lakes, Nevada, by S. T. Harding. (IR) During the years when Winnemucca Lake was approaching dryness and the adjacent Pyramid Lake still exceed a depth of 200 ft in much of its area, comparisons were made of the re-

sults of the effect of heat storage on the monthly evaporation from large water surfaces of different depths under similar climatic conditions.

3084. Depth and Spacing of Tile Drain Systems, by H. Y. Hammad. (IR) The problem of soil saturation due to over-irrigation or rain has been studied herein on hydrodynamical lines. New formulas for the design of tile drains have been obtained.

3085. Discussion of Proceedings Papers 2769, 2929, 2946, 2948, 3005, 3006. (IR) A. Alvin Bishop on 2769. Thomas W. Robinson on 2929. Robert L. McFall and Ben A. Jones, Jr. on 2946. Robert O. Thomas and Max Suter on 2948. J. E. Christiansen on 3005. W. L. Foss on 3006.

3086. Discussion of Proceedings Papers 2806, 2860, 2921, 2986. (SA) P. H. McGauhey on 2806. J. Ganczarczyk on 2860. Jose L. Stamp on 2921. Max Suter on 2986.

3087. Discussion of Proceedings Papers 2772, 2780, 2851, 2863, 2930, 2933, 2934, 2977, 2978, 2983, 2996. (HY) Frank B. Campbell on 2772. David M. Rockwood and Carlton E. Jencks on 2780. J. A. Replogle on 2851. J. C. Stevenson and W. C. Wilkinson on 2863. Francis M. Henderson and Leopold Escande on 2930. Walter T. Wilson and J. Kerr on 2933. D. A. Farrell on 2934. Hunter Rouse on 2977. C. R. Neill and T. K. Chaplin on 2978. Edward J. Low on 2983. G. Abraham on 2996.

April

Journals: Engineering Mechanics, Soil Mechanics and Foundations, Structural.

3088. Analaysis of Structures by System Theory, by N. C. Lind. (ST) Linear graph theory as an aid in the analysis of engineering systems is presented, and its field of application is extended for use in structural analysis.

3089. Generalized Displacements in Structural Analysis, by J. L. Meek. (ST) Fundamental theorems of linear structural analysis are reviewed using generalized displacements and generalized forces. Generalized forces are used to deal with loads between node points in the matrix force method of structural analysis, as well as the equations of equilibrium in the displacement method.

3090. Strength of Round Columns, by Yuzuru Jujita and George C. Driscoll. (ST) Experiments on nine axially loaded and two eccentrically loaded column tests on 2¾-in. diameter solid round bars of low alloy constructional steel and structural carbon steel are reported.

3091. Stability Analysis of Multi-Level Guyed Towers, by Frederick H. Hull. (ST) The results in this paper are expressed in terms of a critical moment of inertia corresponding to a critical buckling wind load. The solution is derived through a rigorous linearization of a non-linear system.

3092. Experiences With Ground Water on Construction, by Robert F. Legget. (SM) Typical examples of ground-water problems encountered on construction work are presented. Some unusual Canadian examples of dealing with the problems that are cited are: Control of surface water to avoid erosion; controlling ground water levels by pumping at a power site; and a "perched reservoir" as the main forebay of a hydroelectric development.

3093. Scale Factors for Simulation of Drifting Snow, by Fuat Odar. (EM) Theoretical scale factors are obtained for simulation of drifting snow in a wind tunnel from threshold characteristics, equation of motion for small particles, and rate of change of the surface elevation.

3094. Dynamic Buckling of Shells under Impulsive Loading, by John S. Humphreys and Sol R. Bodner. (EM) The minimum impulse necessary for dynamic snap buckling of shallow spherical caps and circular cylindrical panels is determined by an examination of unstable equilibrium states in the non-linear range.

3095. Turbulent Diffusion and Anemometer Measurements, by Lionel V. Baldwin and William R. Mickelsen. (EM) Eulerian correlation coefficients derived from hot-wire anemometer measurements are compared with Lagrangian correlation coefficients derived from diffusion measurements in a homogenous turbulent flow, permitting a direct prediction of turbulent diffusion from hot-wire (Eulerian space and space-time) measurements of the turbulent field.

3096. Spectrum of Axisymmetric Turbulence, by N. S. Govinda Rao and N. V. Chandrasekhara Swamy. (EM) Scalar equations derived from axisymmetric turbulence in terms of spectrum functions, and the decay of axisymmetric turbulence are examined.

3097. Pore Pressures in a Foundation Clay, by T. William Lambe. (SM) A comparison is presented of predicted and measured excess pore-water pressures set up in a soft, saturated foundation clay by the placement of a heavy preload. Several sets of predicted pore pressures are obtained from the basic equation, $\Delta u = \Delta\sigma_3 + A(\Delta\sigma_1 - \Delta\sigma_3)$. The agreement between the best set of estimated pore pressures and the field measured values is remarkably close.

3098. Cement Grouting, Progress Report of the Committee on Cement Grouting of the Committee on Grouting of the Soil Mechanics and Foundations Division. (SM) A summary of cement grouting practices and procedures which have proven satisfactory in hydroelectric, irrigation, and flood control projects is presented. Research, methods, and procedures relating to cement grouting are reported. Specific procedures of treatments that have proved satisfactory are cited and the methods and materials used in a variety of conditions encountered in foundations are summarized.

3099. Stability of Non-Linear Systems, by Lawrence H. N. Lee. (EM) The stability of a simple model having two degrees of freedom, two non-linear springs, and initial imperfections is analyzed. It is shown that the modes, as well as the amplitudes, of imperfections have effects on buckling load, mode of buckling, and load-deformation relationships.

3100. Seismic Forces on Engineering Structures, by Frank Neumann. (ST) A formula is developed for determining earthquake forces on structures and other oscillatory systems. The formula serves the same purpose as lateral force formulas in building codes, but is based exclusively on seismological data and concepts.

3101. Vibrations of Linearly Tapered Cantilever Beams, by G. W. Housner and W. O. Keightley. (EM) Natural frequencies and mode shapes of the first three modes of vibration of linearly tapered cantilever beams are presented for twelve tapers. Displacements and their first two derivations are determined by a digital computer for Bernoulli-Euler beams. Tables and graphs determine the mode shapes and frequencies of linearly tapered cantilever beams for practical purposes.

3102. Shear Strength of Sands During Rapid Loading, by Robert V. Whitman and Kent A. Healy. (SM) Undrained triaxial test results for dry and saturated sands, with failure-times as short as 5 milliseconds, are presented in detail. Although the friction angle of sand was independent of failure-time, the excess pore pressures, hence the strength, were time-dependent in certain cases.

3103. Behavior of Pipes Buried in Expansive Clays, by Gabriel Kassif and Joseph G. Zeitlen. (SM) A study is made of the stresses induced in pipes buried in the field in an expansive clay. Pipe strains and soil moistures are measured. Relatively high stresses occurred in the pipes as a result of inequalities in the lateral and vertical swelling behavior of the clay.

3104. A Survey of European Concrete Crossties, by Walter E. Kunze. (ST) A summary of observations made in England, Sweden, France, and Germany, in 1961, of the design, fabrication, installation, and service performance of concrete railway crossties is presented herein. The investigator contacted user railroads, designers, and fabricators and compared all aspects of the performance of the ties.

3105. Discussion of Proceedings Papers 2832, 2881, 2905, 2954, 2959, 2965, 2966, 2971. (SM) Milton G. Speedie on 2832. Werner E. Schmid and Carl B. Crawford on 2881. I. R. Robinson, L. S. McLennan and William W. Moore on 2905. Ventura Escario on 2954. Jacob Feld on 2959. T. K. Chaplin and George T. Triandafilidis on 2965. T. K. Chaplin on 2966. L. R. Szalatkay, Serge Leviavsky and T. K. Chaplin on 2971.

3106. Mixing of a Turbulent Wall-Jet into a Free-Stream, by S. Eskinazi and V. Kruka. (EM) An experimental investigation of the turbulent diffusions of a two-dimensional, plane wall-jet into a uniform, moving free-stream with zero pressure gradient is presented. The existence of similarity conditions as far as 465 slot widths downstream of the slot were studied. A method of reducing these results to the no-free-stream case is presented.

3107. Discussion of Proceedings Papers 2505, 2790, 2880, 2960, 3018, 3028. (EM) Robert L. Thoms on 2505. Glen V. Berg on 2790. John S. McNown and L. S. Yu on 2880. R. O. Belsheim and G. J. O'Hara on 2960. Tsu-kai Chu on 3018. Fernando Venancio Filho on 3028.

3108. Discussion of Proceedings Papers 2903, 2906, 2953, 2967, 3010, 3014, 3025. (ST) Hirotsugu Kimishima on 2903. Mounir Badir on 2906. R. Dabrowski on 2953. Edwin H. Gaylord, Jr. on 2967. K. E. McKee, J. R. Arena and P. B. R. Johnson on 3010. Marvin A. Larson on 3014. S. E. Huey and Max Kurtz on 3025.

May

Journals: Highway, Hydraulics, Power, Professional Practice, Sanitary Engineering, Waterways and Harbors.

3109. Dispersion in Unsteady Porous-Media Flow, by Robert B. Banks and Somsakdi Jerasate. (HY) Longitudinal dispersion in porous media when the fluid motion is unsteady is examined. It was found that concentration distributions can be computed with reasonable accuracy except at very low concentrations.

3110. Computing Traverses by Machine Methods, by John Haller and T. G. Smith. (HW) Development of the California Traverse Computation Service is briefly examined and the service itself is described in detail. Benefits to the engineer are evaluated and improvements are suggested that will take advantage of computing equipment more fully.

3111. Hydraulic Roughness of Corrugated Pipes, by Charles R. Neill. (HY) Field and laboratory experiments on friction losses in corrugated-metal culvert pipes are described. By combining the presented data with previously published data, friction factors are expressed in terms of relative corrugation depths, and flow formulas are developed.

3112. Shallow-Water Wave Action on a Vertical Cylinder, by Melville S. Priest. (WW) Presented is a laboratory study of pressure distribution on the surface of a vertical cylinder that was subjected to shallow-water wave action.

3113. Development of Bed Roughness in Alluvial Channels, by Hsieh Wen Shen. (HY) Experimental data collected at many research laboratories and river data are analyzed. With uniform size materials, variation of resistance due to sediment bed irregularities is a function of both the sediment transport rate and the Reynold's number based on the fall velocity of the sediment particle.

3114. Formulas for Design of Rubble-Mound Breakwaters, by Roald Svee. (WW) A new conception of the mechanics of the breakdown of a breakwater's protection layer is presented. Based on this conception, a stability analysis leads to two formulas for breakwater protection.

3115. Hovering Breakwater, by R. L. Wiegel, H. W. Shen, and J. D. Cumming. (WW) A bag filled with water that hovered with its top just afloat was tested both in the laboratory and in San Francisco Bay. It appeared to be more effective for the wind waves at their limit of stability (whitecaps) encountered in the bay than for the swell-type waves of the laboratory.

3116. Transmission Losses in Ephemeral Stream Beds, by R. V. Keppel and K. G. Renard. (HY) Transmission losses up to 25 acre-ft per mile of channel have been measured on a sand-gravel bedded stream in southeastern Arizona. These losses are a major factor in causing decrease in water yield per unit area with increasing size of drainage area, and in modifying the shape of the downstream hydrograph.

3117. Mechanism of Coagulation in Water Treatment, by S. Mackrle. (SA) A theory of coagulation in water treatment based on physical theory of colloids is presented. The mechanism of coagulation is explained by formation of hydrous oxides precipitate and by the dependance of psi-potential of this precipitate on the pH value of the solution.

3118. Bibliography on Civil Engineering Features of Thermal Plants, Progress Report of the Task Committee on Compilation of Bibliography on Civil Engineering Features of Thermal Plants of the Committee on Power Project Planning and Design of the Power Division. (PO) A convenient source of reference of published articles on various phases of civil engineering work in connection with the design of thermal power plants is presented.

3119. Air Resources Engineering, Progress Report of the Research Council on Air Resources of American Society Civil Engineers. (SA) The reduction of atmospheric pollution is one of the functions of the engineering profession. In the field on environment sanitation, management of air resource is becoming as important as water resource management.

3120. Urban Transportation Tasks of the Future, by Wilbur S. Smith (HW) Developments in Urbanization that are affecting transportation and observations concerning future travel requirements are presented. As balance is sought among urban transportation modes, future transportation systems will need to be related to economic, social, and political conditions.

3121. Transient Operation of the Trickling Filter, by W. F. Ames, V. C. Behn, and W. Z. Collings. (SA) The transient operation of the trickling filter, when treated as a packed chemical bed, is characterized by a set of partial differential equations that are solved for several sets of boundary conditions. A steady state design equation is derived and applied to filter design.

3122. Critical Depth in Trapezoidal Channels, by R. M. Advani. (HY) Several methods of computing the critical depth in trapezoidal channels are described. The various equations are expressed in terms of suitable nondimensional parameters in order to make them universal in application.

3123. Noise Reduction Theory Applied to a Large Power Plant, by John Parmakian. (PO) Noise problems and procedures for noise control are described. The method used to solve the noise problem in the turbine gallery of the Hungry Horse power plant is illustrated.

3124. New Concepts for Urban Freeway Interchanges, by Donald W. Loutzenheiser. (HW) As experience is gained by observing traffic operations on completed facilities, new concepts for detail design of urban freeways are evolved; proper spacing of interchanges, selection of interchange type, and design of ramp terminal areas are described.

3125. Experimental Determination of Sludge-Flow Parameters, by Vaughn C. Behn. (SA) Use of a rotational and a capillary viscometer for the experimental determination of non-Newtonian flow parameters of sewage sludges is considered. A description of the equipment and calibrating procedures is given together with certain experimental results.

3126. Channel Stabilization on the Arkansas River, by John L. Bush. (WW) Design of different types of revetment and river training structures are examined and results obtained from their use in providing a stabilized channel suitable for navigation are evaluated.

3127. Simplified Water Filtration Plant Design, by Vance C. Lischer. (SA) Presented are some recent design innovations that can effect savings in initial cost of water filtration plant design. Emphasis is given to simplification of plant arrangement, piping, and control by use of pumps.

3128. Laboratory Determination of Littoral-Transport Rates, by Rudolph P. Savage. (WW Mechanics of littoral transport and a review of laboratory and prototype measurements of littoral-transport rate are presented. Laboratory test facilities required for littoral-transport studies and their effects on littoral-transport rate are examined.

3129. The Unsteady Dissolved-Oxygen Sag in a Stream, by Wen-Hsiung Li. (SA) A solution is obtained for the dissolved-oxygen sag in a steady stream with added discharge and pollution along the course. Unsteady distribution of dissolved oxygen due to unsteady initial oxygen content and BOD load can be computed.

3130. Design of Steel Tower Transmission Lines, by Warren O. Peterson. (PO) Engineering aspects of planning, design, and layout for extra high voltage transmission lines are examined. Experiences from the construction of 270 miles of 345-kv line between Niagara and Utica, N. Y., are cited.

3131. 1961 Daniel W. Mead Prize for Students, Report of the Committee on Student Chapters of the Department of Conditions of Practice, ASCE.

3132. 1961 Daniel W. Mead Prize for Associate Members, Report of the Committee on Younger Members of the Department of Conditions of Practice, ASCE.

3133. Mathematics of Complete-Mixing Activated Sludge, by Ross E. McKinney. (SA) Fundamental mathematical equations are presented for the three basic complete-mixing activated sludge systems: (1) Aeration only, (2) excess sludge in effluent, and (3) separate sludge wasting.

3134. Simplified Sag-Tension Equations for Power Lines, by Francis J. Hubert. (PO) A simplified time-saving method of accurately calculating numerous types of overhead conductor sag-tension problems is presented with special emphasis on broken conductor, permanent set, steep hillside installations, insulator offset, and aluminum conductor steel reinforced.

3135. Water-Hammer Analysis Including Fluid Friction, by Victor L. Streeter and Chintu Lai. (HY) A theoretical analysis of water hammer with fluid friction is developed from the basic partial differential equations. These equations are solved directly by the method of characteristics with aid of a digital computer.

3136. In-Situ Stability of Soil-Aggregate Road Materials, by Eugene Y. Huang. (HW) Results are presented of a study of the influencing factors on the in-situ stability of the surface course and subgrade materials, as evaluated by field CBR tests of typical soil-aggregate roads in central Illinois.

3137. TVA's Paradise Steam Plant, by Reed A. Elliot, Walter F. Emmons, and Henry T. Lofft. (PO) Planning, site selection, fuel supply, design, and construction of the TVA Paradise steam plant is described herein. The station is to have an initial installation of two 650-Mw generating units.

3138. Freeboard Allowances for Waves in Inland Reservoirs, by Thorndike Saville, Jr., Elmo W. McClendon, and Albert L. Cochran. (WW) The characteristics of wind-generated waves in reservoirs affect the run-up of waves on embankments and are basic considerations in establishing freeboard allowances. Relationships between surface winds and waves produced in deep inland reservoirs are shown to be basically the same as in the ocean, but factors must be modified because of surrounding physical features.

3139. Hydro System Power Analysis by Digital Computer, by David J. Lewis and Loren A. Shoemaker. (HY) System power studies in the North Pacific Division, Corps of Engineers, are made on the electronic digital computer with a program that can handle systems of up to seventy hydroelectric projects in the 2,000-word internal memory of the IBM 650.

3140. Manning Roughness Factors for Concrete Sewer Pipe, by I. W. Santry. (SA) Results are presented of the study of partial depth flows in sewer lines constructed on different grades using 6, 8, and 12-in. diameter, high quality, long, rubber gasketed concrete pipe. Manning roughness factor is related to variations in depth of flow, Reynolds number, Froude number, and critical slope.

3141. Wave Force Coefficients for Offshore Pipelines, by Herbert Beckmann and Murphy H. Thibodeaux. (WW) Drag, lift, inertial force coefficients due to wave action on pipelines with circular and trapezoidal cross sections are evaluated for the case in which they are in contact with a smooth hard surfaced ocean floor.

3142. Design Studies for Chute-des-Passes Surge-Tank System, by John W. Forster. (PO) Chute-des-Passes hydroelectric plant, Quebec, has a pressure tunnel and surge tank both upstream and downstream of the turbines. An electronic computer was used to analyze the hydraulic system behavior over a range of surge-tank size, reservoir elevation, tunnel resistance, and load conditions.

3143. Side-Channel Spillway Design, by Harold S. Farney. (HY) Presented is a generalization of the basic theory of side-channel spillways as developed by Julian Hinds and an adaptation of this theory to the design of spillways with an L-shaped crest.

3144. Discussion of Proceedings Papers 2485, 2653, 2810, 2849, 2867, 2871, 2935, 2976, 2977, 2978, 2982, 2983, 2984, 2990, 2992, 3040. (HY) D. B. Simons and E. V. Richardson on 2485. Dean F. Peterson and P. K. Mohanty on 2653. Serge Leliavsky on 2810. Praxitelis A. Argyropoulos on 2849. C. E. Busby on 2967. Roger J. M. De Wiest on 2871. E. Roy Tinney, Wilfred E. Barnes, Ottis W. Rechard, and Glenn Ingram on 2935. Richard A. Stein on 2976. Louis Landweber on 2977. Emmett M. Laursen and John R. Christofferson on 2978. Hurd C. Willett, Charles G. Abbot, Steponas Kolupaila, J. M. Mitchell, Jr., Roy K. Linsley, Paul F. Keim, N. J. Cochrane, and Phillip Z. Kirpich on 2982. D. L. Brakensiek on 2983. T. Blench and Gerald Lacey on 2984. H. V. Peterson on 2990. Keith R. Marmion on 2992. G. Combes on 3040.

3145. Discussion of Proceedings Papers 2677, 2947. (HW) B. F. McCullough and W. B. Ledbetter on 2677. T. William Lambe and the Committee on Pipeline Crossings on 2947.

3146. 1961 Salary Survey, Report of the Committee on Employment Conditions of the Department of Conditions of Practice, ASCE. (PP) Salaries paid to civil engineers in the last quarter of 1961 are 7.2% higher than those reported in 1959. Salaries and percentage increases are indicated for different preprofessional and professional classifications of civil engineering positions.

3147. Land Burial of Solid Packaged Radioactive Wastes, by James M. Morgan, Jr., John C. Geyer, and David C. Costello. (SA) Presented are practices involving land burial of solid packaged radioactive wastes in the United States. Handling techniques, containers, transportation practices, and burial grounds are mentioned. Waste shippers and quantities are indicated; an estimate is made of future waste production.

3148. Evaluation of Federal Hydroelectric Power Projects, by William Whipple, Jr. (PO) A 1954 agreement between Federal agencies established a tax-equivalent basis for comparison of Federal hydroelectric power projects with private alternatives. Recent developments of economic theory change the approach, but sustain the main provision of the agreement.

3149. Discussion of Proceedings Papers 2709, 2714, 2850, 2856, 2857, 2979, 2993, 2995. (PO) Parker R. Grimes and Glenn H. Von Gunten on 2709. O. C. Zienkiewicz and R. W. Gerstner on 2714. El Sayed M. Hassan on 2850.

Berton M. MacLean on 2856. D. W. Coughlin, Jr., on 2857. G. R. Latham on 2979. G. J. Eicher and Glenn H. Von Gunten on 2993. Ivor L. Pinkerton on 2995.

3150. Discussion of Proceedings Papers 2820, 2862, 2874, 2921, 2985. (SA) Kenneth J. Ives on 2820. Daniel A. Okun on 2862. Committee on Sanitary Engineering Research on 2874. Philip H. Perkins and Howard Peckworth on 2921. P. H. McGauhey, John J. Baffa, Max Suter, and Paul F. Keim on 2985.

3151. Discussion of Proceedings Papers 2952, 2975. (PP) Ray L. Derby and William K. Weight on 2952. D. R. Barnes, Karl Terzaghi, Jacob Feld, C. Ken Weidner, A. Bernard Drought, Albert S. Fry, Alfred Ogram, Morton I. Goldman and C. Rogers McCullough, and Robert Thomann on 2975.

3152. Laminar Damping of Oscillatory Waves, by Peter S. Eagleson. (HY) Shearing stresses exerted on a smooth horizontal bottom by progressive water waves are investigated experimentally and theoretically in the laminar regime. Experimental surface resistance coefficients exceed those of the linear theory.

3153. Discussion of Proceedings Papers 2807, 2809, 2819, 2875, 2876, 2883, 2888, 2980, 2987. (WW) R. B. Peck and M. T. Davisson, and James Michalos and David P. Billington on 2807. Charles Senour on 2809. Charles E. Lee on 2819. P. Leimdorfer on 2875. Shih-Ta Hsu on 2876. Robert E. Hickson on 2883. Bernard Le Mehauté, Basil W. Wilson, and John Miles and Walter Munk on 2888. Eric E. Bottoms and D. C. Bondurant on 2980. Harvill E. Weller on 2987.

June

Journals: Engineering Mechanics, Irrigation and Drainage, Soil Mechanics and Foundations, Structural.

3154. Unsteady Flow of Fluids in Closed Systems by Turgut Sarpkaya. (EM) The transient fluid motion encountered in the confined flow of fluids through two types of two-dimensional, reservoir-conduit systems is studied. The effect of nonuniformity of the velocity distribution and the total mass subjected to acceleration is determined through the application of the Schwartz-Christoffel transformation and electrical analogy.

3155. Critical Flow in Terms of Hydraulic Equivalents, by Francis S. Y. Lee. (IR) A modified approach by means of hydraulic equivalents is presented to simplify the study of critical flow in prismatic channels. Useful nomographs are also developed.

3156. Folded Plate Analysis by Minimum Energy Principle, by M. N. Fialkow. (ST) The principle of minimum total potential is applied to analysis of folded plate structures. The method is developed for the case of folded plates simply supported at the ends and subjected to longitudinally symmetrical loadings.

3157. Application of Orthotropic Plate Theory to Bridge Design, by Kuang-Han Chu and G. Krishnamoorthy. (ST) Problems involved in the application of orthotropic plate theory to bridge design are examined. Simplified formulas are developed reducing computing time and for improving accuracy. Closed-ford solutions are obtained for certain series forms that converge slowly. An example of the application of the theory is shown.

3158. Friction and Cohesion of Saturated Clays, by T. H. Wu, A. G. Douglas, and R. D. Goughnour. (SM) An experimental study was made of the behavior of cohesion and friction in clays during constant strain rate, creep, and relaxation triaxial tests. Undisturbed, laboratory flocculated, and remolded specimens were used. The friction and cohesion are dependent on the clay structure and the loading method.

3159. Free Vibration of Fluid-Filled Cylindrical Shells, by M. L. Baron and R. Skalak. (EM) Mode shapes and frequencies of free vibration of cantilevered cylindrical shells, partially or completely filled with fluid, are of use in the analysis of the response of such shells to transient excitations. The kinetic energy of the fluid filling in each mode of vibration is evaluated and frequency determinants are presented for the computation of both the frequencies and the mode shapes of the partially filled shells.

3160. Compacting a Dam Foundation by Blasting, by Charles E. Hall. (SM) A deep hole in the foundation of Karnafuli Dam, in East Pakistan, was filled by dumping a cohesionless sand in to the waterfilled hole, and, after dewatering, compacting the loose sand-fill by detonating buried charges of explosives. Described herein are the field test and construction program and the detailed data of this unique operation.

3161. Synthesis of Material and Configuration Selection, by Lucien A. Schmit, Jr., and Thomas P. Kicher. (ST) Several combinations of material and configuration are proposed for a simple three-bar truss structure and the structural synthesis concept is used to select the minimum weight, optimum design. Incorrect selection of material or configuration, or both, may result in a substantial weight penalty.

3162. Passive Analog Computers for Structural Analysis, by Richard H. MacNeal. (ST) A passive analog computer comprises a network of inductors, resistors, capacitors, and transformers that is excited by current and voltage sources. Such computers are widely used in the aircraft and missiles industry for the simulation of structures subjected to static and dynamic loads. The results of five analog computer analyses are described and compared with field measurements.

3163. Experimental Study of Masonry Walls on Beams, by Saky Rosenhaupt. (ST) Masonry walls on point supported beams were tested to failure under uniformly distributed load. The results are compared with a proposed theory. Ultimate strength, modes of failure, and influence of various factors are considered and recommendations for the design of foundation beams are given.

3164. Analysis of Multi-Span Gable Frames, by John R. Harris. (ST) Presented is a method for the analysis of a multi-span gable frame structure, using tables listing deformations at tops of columns on a single gable frame, for various loading conditions.

3165. Experiment and Theory on Yielding at Varying Load Rates, by A. M. DiGioia, Jr., and R. G. Crum. (EM) An explosively operated tensile loading apparatus with a highly controllable velocity-displacement pattern and accurate load and strain sensing devices has been built and operated to obtain experimental data to correlate with the Cottrell-Bilby time dependent dislocation model. Good correlation is found for initial tests on aluminum alloys at loading rates varying from 4×10^5 to 2×10 psi per sec.

3166. Ground-Water Technology to Solve Litigation Problems in Colorado, by Edward D. Jenkins and Edward A. Moulder. (IR) Summarized herein are the water rights in Colorado and the problems that occur between users of ground water and surface water. A case history of two groundwater users is described to illustrate how ground-water technology may aid to courts in formulating decisions.

3167. Area Properties from Coordinates, by G. Donald Brandt. (ST) Formulas are derived to determine the structurally important properties of areas from the coordinates of points on the boundary. The method is readily adapted to computer calculation and may be used as a subroutine in many phases of structural engineering.

3168. Analysis of Free Straight Multiflight Staircases, by Avinada Siev. (ST) An analysis based on the space interaction of plates shows that equilibrium is possible, even for unsymmetrical loading, without considering torsional moments. The torsional moments are calculated as secondary moments and, contrary to accepted notion, are not usually a determining factor with regard to dimensions.

3169. Prediction of Swelling Potential for Compacted Clays, by H. Bolton Seed, Richard J. Woodward, Jr., and Raymond Lundgren. (SM) Factors influencing the swelling of clays are examined and a method is proposed for predicting the swelling potential of compacted clays, in terms of the plasticity index, the activity and the percentage of clay size particles present in the soil. The applicability of the method for correctly classifying the swelling characteristics of soils is demonstrated.

3170. Discussion of Proceedings Papers 2669, 2682, 2757, 2775, 2836, 2923, 2929, 3005, 3006, 3007, 3083. (IR) A. R. Robinson on 2669. Philip P. Dickinson on 2682. Raymond A. Hill on 2757. Herman Bouwer on 2775. R. H. Brooks on 2836. S. Ramaseshan on 2923. Thomas Maddock on 2929. Harry F. Blaney, Arthur F. Pillsbury, O. R. Lunt on 3005. Armando Balloffet, A. R. Robinson and Henry Liu on 3006, Otto W. Peterson, Raphael G. Kazmann on 3007. Marvin E. Jensen and Howard R. Haise, G. Earl Harbeck, Jr., on 3083.

3171. Discussion of Proceedings Papers 2791, 2794, 2796, 2797, 2832, 2959, 2966, 3020, 3056. (SM) John C. King and Edward G. W. Bush on 2791. Thomas B. Kennedy on 2794. W. F. Swiger on 2796. R. H. Karol and A. M. Swift on 2797. John M. Bird on 2832. Andrew Reti on 2959. R. C. Harlan on 2966. W. J. Larnach on 3020. I-t'an Yu on 3056.

3172. Evaporation at High Elevations in California, by Leonard L. Longacre and Harry F. Blaney. (IR) The results of thirteen years of evaporation and meteorological measurements at elevations ranging from 410 ft to 9,194 ft above sea level are presented. Regression equations were developed and used for computing evaporation for missing winter months when water surfaces are frozen. Coefficients were developed for converting pan evaporation to reservoir evaporation.

3173. Discussion of Proceedings Papers 2688, 2880, 3009, 3018, 3019, 3028, 3059. (EM) Horace J. Grover on 2688. Richard J. Wasley on 2880. S. H. Simmonds on 3009. Daniel Dicker on 3018. H. B. Harrison on 3019. Z. L. Moh, John E. Goldberg, and J. L. Bogdanoff, L. J. Meszaros on 3028. Campbell Massey on 3059.

3174. Load Carrying Capacity of Concrete Pavements, by G. G. Meyerhof. (SM) The ultimate bearing capacity of plain and reinforced concrete pavements is estimated on the basis of a rigid-plastic slab on an elastic subgrade for various loading and boundary conditions in the absence of warping effects. The results are compared with field observations on concrete airport pavements and some model loading tests.

3175. Friction Pile Groups in Cohesive Soil, by Robert L. Kondner. (SM) Nondimensional techniques based on the methods of dimensional analysis are used to develop analytic expressions for the load-deflection characteristics of vertically loaded, vertical friction pile groups in cohesive soils.

3176. Bulkhead Test Program at Port of Toledo, Ohio, by Peter A. Hakman and Warren M. Buser. (SM) Presented is an interim report on the results of a test program to determine the bending moments and deflections of an anchored steel sheet pile bulkhead using slope indicator equipment, weldable strain gages, and conventional surveying methods. A comparison of the results obtained with various theoretical methods of analysis is presented.

3177. Distribution of Structural Response to Earthquakes, by Emilio Rosenblueth and Jorge I. Bustamante. (EM) Idealizing earthquakes as random sequences of waves, an approximation is derived for the probable distributions of responses of one-degree-of-freedom, linearly elastic, linearly damped systems. Results compare satisfactorily with damped spectra of actual earthquakes.

3178. Utilization of Water and Irrigation in Israel, by Harry F. Blaney. (IR) The water resources in Israel that will be available for use in the foreseeable future represent approximately 2,000 million cm per yr. Approximately 325,000 acres were irrigated in 1960. The quantity of water used in 1960 was estimated at 1,000 million cm, most of which was applied to crops by sprinkler irrigation.

3179. Discussion of Proceedings Papers 2645, 2650, 2668, 2703, 2712, 2715, 2802, 2845, 2903, 2910, 2955, 2958, 2963, 2970, 3021, 3022, 3023, 3045. (ST) William Zuk, A. A. Eremin on 2645. Arthur H. Nilson on 2650. A. A. Eremin, R. L. Sanks on 2668. Donald L. Dean on 2703. Peter P. Gillis and Kurt H. Gerster on 2712. Phil M. Ferguson on 2715. Walter J. Austin on 2802. Oliver A. Baer on 2845. Nicholas J. Beaujoint on 2903. Robert L. Ketter on 2910. Robert S. Ayre on 2955. F. L. DiMaggio, L. T. Tallarico, Joseph L. Zistler, John F. Wiss on 2958. Jerry C. L. Chang on 2963. Kaveti Seetharamulu on 2970. A. M. Ozell on 3021. Paul F. Rice on 3022. R. G. Robertson and S. C. B. Eriksson, Albert Knott on 3023. Larry A. Colbert on 3045.

3180. Plane Plastic Deformation of Soils, by Shunsuke Takagi. (EM) A consistent theory of plane plastic deformation of soil is formulated by assuming soil as an ideal material that has constant cohesion and frictional angle. Such an ideal soil is an extension of the ideal metal that has cohesion only.

3181. Buffetting of a Suspension Bridge by Storm Winds, by Alan Garnett Davenport. (ST) Considered is the storm wind loading of an aerodynamically stable suspension bridge. In addition to the steady mean wind loading, the dynamic loading caused by vertical and horizontal gusts is considered. Dynamic effects are found to be as important as the steady wind load.

3182. Mechanics of Evapo-transpiration, by David W. Hendricks and Vaughn E. Hansen. (IR) Evapo-transpiration is analyzed as a continuous process from soil to atmosphere. Knowledge from other fields is used and an engineering analysis is applied to the problem. Both the mechanisms of motion and energy sources are examined using Darcy's law, the power equation in fluid mechanics, and Fick's law.

3183. Nomenclature for Soil Mechanics, Progress Report of the Committee on Definitions and Standards of the Soil Mechanics and Foundations Division. (SM) Presented herein is a list of recommended symbols involving a limited number of commonly used terms that was studied in detail by a Joint ASCE-ASTM Committee on Nomenclature in Soil Mechanics and Foundations.

July

Journals: Hydraulics, Power, Sanitary Engineering.

3184. Optimized Tangent Towers for 345-KV-Transmission, by David L. Wood. (PO) Design parameters, tower configuration, as well as the analysis and design considerations utilized in determining an optimized 345 kv tangent tower that is to be used on the southern half of the Houston-Dallas Interconnecting 345 kv Transmission line are presented. Methods and means of analysis, design criteria, member selection, and the proposed test of a prototype tower are also examined.

3185. Hydraulics of Gravity Wells in Sloping Sands, by Mahdi S. Hantush. (HY) The drawdown around a gravity well completely penetrating a sloping sand is expressed analytically for several flow systems. The results are valid only if the greatest drawdown in the flow system is less than 50% of the original depth of flow and provided that the slope of the aquifer base is less than 20%.

3186. Optimum Penstock Diameter in Hydroelectric Plants, by Edward J. Low. (PO) Selection of the most economical size of penstock is based on the combined minimum capital cost both for construction and power loss. Presented are some formulas and charts for determining the optimum diameter with considerations given to structural safety and minimum thickness against handling and corrosion problems.

3187. Uplift Resistance for Transmission Tower Footings, by Edward A. Turner. (PO) Results of a research project undertaken to develop design criteria for tower foundations subjected to uplift loads are presented. Empirical relationships between uplift resistance, footing dimensions, and soil properties are defined for shallow and deep footings. Several previously accepted methods are compared with the equations developed.

3188. Perspective on National Water Resources Planning, by Theodore M. Schad. (HY) The purpose herein is to trace the development of national planning for river basin development in the United States from the early days of the nation down through the 20th Century; to examine briefly the most recent reports having a bearing on the subject; and to consider briefly the role of the civil engineer in comprehensive water resources planning for the future.

3189. Marking Beach Materials for Tracing Experiments, by C. Kidson and A. P. Carr. (HY) Techniques for obtaining data on the nature and speed of sediment transport by marking beach material are considered and compared.

3190. General Solution of the Hydraulic Jump in Sloping Channels, by Praxitelis A. Argyropoulos. (HY) Presented herein is a generalized analysis of hydraulic jump in sloping or horizontal prismatic channels of cross-sectional shape, which leads to a simple and practical method of computing the essential dimensions of the phenomenon.

3191. John Day Lock and Dam: Planning and Site Selection, by Glenn H. Von Gunten and John F. Bruce. (PO) The John Day Lock and Dam is a multipurpose navigation, flood control, and power project forming the final link in slack-water development of the Columbia River. The significant factors in project planning leading to the economic determination of site, layout, and operating pool levels are presented herein. The method of river diversion during construction, and the establishment of the size, characteristics, and number of generating units, and other project features are also examined.

3192. South America's First EHV Transmission Line, by A. G. Villepique. (PO) Presented is a general description of a 230-mile, 345 kv to 400 kv, single circuit, steel tower line that was completed in Brazil, in 1960. Included are design data, selection of materials, choice of alinement, and construction methods.

3193. Towers and Foundations for Project EHV, by Philip A. Wild, and Emerson F. Haslam, Jr. (PO) Project EHV involves the design, construction, and operation of a complete prototype AC extra high voltage transmission line to be operated at 750 kv. The variety of structures, materials, and design techniques involved and the unusual foundation treatments used (namely, explosive soil compaction and the use of a rigid pile frame) are examined herein.

3194. Sediment Transportation Mechanics: Introduction and Properties of Sediment, Progress Report of the Task Committee on Preparation of Sedimentation Manual of the Committee on Sedimentation of the Hydraulics Division. (HY) The problems involved in sediment transportation mechanics as well as the terms and concepts to be examined are introduced, and the properties of sediments are studied from the standpoint of the properties of the particles and the properties of the sediment as a whole.

3195. Sediment Transportation Mechanics: Erosion of Sediment, Progress Report of the Task Committee on Preparation of Sedimentation Manual of the Committee on Sedimentation of the Hydraulics Division. (HY) The removal of soil particles by means of water or wind from their environment is examined. The influence of various factors on this process is studied.

3196. Studies of Severe Rainstorms in Illinois, by G. E. Stout and F. A. Huff. (HY) Research studies have been made of severe rainstorms in Illinois to obtain detailed information for hydrologic applications. The results are summarized and references are cited for further details. Basic data for the studies were obtained from operation of special raingage networks, from field surveys of severe storms, and from historical weather records.

3197. Design Features of Glen Canyon Dam, by Ernest R. Schultz. (PO) The designs for the various features of Glen Canyon Dam are described. Included are the geology of the foundation; stress studies of the dam; structural behavior instrumentation; foundation treatment; temperature control of the mass concrete; design of the penstocks, river outlets, and spillway; and diversion and care of the river.

3198. Concrete Reactor Shield, by Harvey L. Meyer. (PO) The design approach and construction procedure for the reactor biological shield of the Nuclear Electric Generating Station at Indian Point, N. Y., is described.

3199. The Prediction of Stream Reaeration Rates, by M. A. Churchill, H. L. Elmore, and R. A. Buckingham (SA) The results of many field measurements of the actual rates at which river water that is low in dissolved oxygen, but free of organic pollution, absorbs oxygen from the atmosphere are presented herein.

3200. Prediction of Temperature in River and Reservoirs, by Jerome M. Raphael. (PO) A procedure is presented for predicting the temperature of various water bodies from weather records, inflow and outflow characteristics, and the surface area and volume of the body of water. The method can be applied to shallow lakes and flowing streams, in which the water is so stirred by wind or current that temperatures are uniform.

3201. Economics of Composting Municipal Refuse, by Hillel I. Shuval. (SA) An economic analysis of two composting plants in Israel is presented in order to illustrate the economic feasibility of refuse composting under certain favorable economic conditions. These data, although not directly translatable into costs for similar plants in the United States, indicate that composing plants may be in the same cost range as refuse disposal by incinerators.

3202. Longitudinal Dispersion in Steady and Unsteady Flow, by Ralph R. Rumer, Jr., (HY) The results of an analytical and experimental investigation of longitudinal dispersion in porous media for steady and unsteady flow conditions are presented. The relationship between the seepage velocity and dispersion coefficient determined from steady flow is valid for unsteady periodic flow if the time average seepage velocity is used.

3203. Symposium on Pumping Storage: Run of River Pumped Storage—Smith Mountain Project, by M. J. Hroncich and J. M. Mullarkey. (PO) Described is the Smith Mountain Project, which is under construction (as of 1962) and will develop 580,000 kw of dependable peaking capacity utilizing pumped storage. Studies that established the final design of the pumped storage features, the noteworthy civil engineering features, and the applications of digital computer programs in the design studies are described.

3204. Symposium on Pumped Storage: General Planning of Pumped Storage, by R. D. Ley and E. S. Loane. (PO) Technical features, economic characteristics, and their interrelationships are examined for simple pumped storage developments. Data are drawn from actual experience, load characteristics, and fuel prices of the Middle Atlantic States.

3205. Symposium on Pumped Storage: Site Investigations of Pumped Storage Facilities, by Milton G. Salzman. (PO) Factors involved in the planning and development of typical pumped storage projects are examined. The field investigation and preliminary design of the Longwood Valley Water Supply and Pumped Storage Project and the Yards Creed Pumped Storage Hydroelectric Project are described.

3206. Discussion of Proceedings Papers 2558, 2767, 2985, 3075. (SA) William J. Oswald on 2558. John E. Kiker, Jr., and F. W. Gilcreas on 2767. Samual A. Greeley and Paul E. Langdon on 2985. R. E. Dodson, Ralph Stone on 3075.

3207. Fresh and Salty Ground Water Beneath Barrier Beaches, by Norbert J. Lusczynski and Wolfgang V. Swarzenski. (HY) Test drilling, in 1959 and 1960, at Atlantic Beach and Lido Beach provided the principal basis for the definition of the distribution and movement of fresh and salty ground water in sand, silt, and clay

deposits beneath the barrier beaches of southwestern Long Island, N. Y. Basic concepts and techniques for the study of salt-water intrusion were developed during the investigation.

3208. Discussion of Proceedings Papers 2979, 2993, 2995, 2998, 3204. (PO) F. L. Lawton on 2979. F. L. Lawton on 2993. F. L. Lawton on 2995. F. L. Lawton on 2998. Paul E. Gisiger on 3204.

3209. Discussion of Proceedings Papers 2478, 2484, 2546, 2776, 2812, 2816, 2817, 2823, 2933, 2865, 2866, 2930, 2936, 2976, 2977, 2978, 2982, 2983, 2984, 2992, 3040, 3069, 3071. (HY) Fred W. Blaisdell on 2478. Serge Leliavsky, Daryl B. Simons and Maurice L. Albertson on 2484. Frank D. Masch and Walter L. Moore on 2546. John E. McCall on 2776. Glenn H. Von Gunten on 2812. D. B. Simons and E. V. Richardson on 2816. W. Russell Hamon on 2817. William W. Sayre and Maurice L. Albertson on 2823. David M. Hershfield on 2933. Willard M. Snyder on 2865. William L. Northrop and Clarence W. Timberman on 2866. Armando Balloffet on 2930. Richard J. Wasley on 2936. D. W. Hubbell and W. L. Haushild on 2976. Satya Prakash Gred, Theodore S. Strelkoff, Y. S. Yu on 2977. G. Tison, Jr. on 2978. Robert B. Gallup, Fred G. Fellows on 2982. Cornelius C. S. Shih on 2983. D. B. Simons, T. M. Prus-Chacinski, Claude Inglis on 2984. A. E. Bruington, F. D. Sears, and R. E. Bredehorst, Jack J. Coe on 2992. M. S. Misra, R. M. Advani on 3040. Gene E. Willeke on 3069. Bruce M. Reich on 3071.

August

Journals: Aero-Space Transport, City Planning, Engineering Mechanics, Soil Mechanics and Foundations, Structural, Waterways and Harbors.

3210. An Appraisal of Zoning as a Tool of City Planning, by Richard F. Babcock. (CP) Presented is an appraisal of zoning as a tool of city planning. The success that zoning has achieved in public acceptance and the regard in which it is held by professionals are examined.

3211. River Hydraulics in 1961, by T. A. Lane and E. J. Williams, Jr. (WW) A plan for flood control on the Lower Mississippi that was developed a century ago (1861) is presented herein. Problems relating to open-channel flow that confronted hydraulic engineers are examined. Solutions, development of original formulas, and a comparison with other formulas used then and in 1962 are given.

3212. Column Tests on 7½-in. Round, Solid Bars, by Theodore V. Galambos and Yukio Ueda. (ST) Results are presented of four axially loaded column tests performed on 7½-in. diameter solid, round bars of "T-1" steel and structural carbon steel.

3213. Helicopter Performance and Heliport Design, by Kenneth K. Wilde. (AT) Performance characteristics of the helicopter that affect heliport design are reviewed by stating the Civil Air Regulations governing helicopter design and analyzing several helicopter flight manuals. Information is presented on landing and take-off distances, altitude, temperature and wind effects, and approach departure slopes.

3214. Stabilization of Canadian River at Canadian, Texas, by William G. Byers. (WW) An account is presented of the performance and cost of a permeable steel jetty installation for protection of a bridge on a wide, shallow alluvial stream with large variation in discharge.

3215. Structural Steel for Buildings: Progress Report of the Administrative Committee of the Committee on Metals of the Structural Division. (ST) Specifications for the design, fabrication, and erection of structural steel for buildings have been developed and published by AISC. These and the accompanying commentary should be critically examined by structural engineers and discussed in the Journal of the Structural Division.

3216. Distribution of Work Trips in Toronto, by Karl Heinz Dieter. (CP) Data from a survey in Toronto suggest the use of exponential trip propensity functions for trip distribution models. The method of analyzing origin-destination data and a modification of the gravity formula are presented.

3217. The Engineer's Role in Planning Urban Renewal, by James W. Follin. (CP) The civil engineer's services are indispensable to preliminary phases of urban renewal as well as to project planning. Public officials are urged to provide qualified engineers for sound results and cost savings.

3218. Wave Forces on Breakwater Capstones, by Gunnar Sigurdsson. (WW) Described are laboratory measurements of the magnitude and distribution with depth of the hydraulic forces that act on the individual capstones in rubble-mound breakwaters. The hydraulic forces are classified into eight categories according to their kinematic causes. Three possible modes of failure of rubble-mound breakwaters are examined.

3219. Metal Work Design of High Intensity Radiation Cells, by John M. Ruddy. (ST) The special factors that must be considered in engineering, detailing, and building complex "hot" cells are described, including some important design criteria. Heavy shielding concrete, surface finishes, and the requirements of related appurtenances are also examined.

3220. Elliptical Ring under Axisymmetric, Linear Loading, by S. Sarkadi. (EM) The cross

piece of two steel pressure pipes is stiffened by an elliptical ring-shaped plate bounded by two confocal ellipses, loaded in its own plane. The internal forces of the ring are determined. Formulas are given for determining the peripheral normal stresses.

3221. Dynamic Response and Stability of Piers on Piles, by James Michalos. (WW) A method of analysis is presented for determining the dynamic response and stability of a pier on piles when it is subjected to later impact anywhere along its periphery. Simple and compound fendering systems are considered, and a numerical example is included.

3222. Defining the Term "Urban Planning": Progress Report of the Committee on Terminology Used in the Practice of City Planning of the City Planning Division. (CP) The development of the definition of the term "urban planning" has done much to obtain agreement on the purpose, concepts, and relationship of urban planning to the numerous engineering design and construction operations involved in urban development.

3223. An Approach to Rock Mechanics, by Klaus W. John. (SM) A review of the rock mechanics concept developed by the geomechanical group in Salzburg, Austria, is presented and the most important rock and geomechanical terms and techniques are described. The principles of engineering testing of rock masses and the state of statics of rock masses and anchored rock constructions are examined.

3224. Experience with Canadian Varved Clays, by V. Milligan, L. G. Soderman, and A. Rutka. (SM) A review of existing data concerning the geotechnical properties of some varved clays in Canada is presented. The design of certain foundations and earth structures on varved clays is examined and illustrated with case histories of specific problems.

3225. Ground Vehicle Mobility on Soft Terrain, by W. J. Dickson. (SM) An attempt has been made to evaluate the capability of a given soil to support the passage of a vehicle. The tilting plate penetrometer was designed to measure energy losses in a soil acted on by a moving vehicle and to provide a better understanding of soil-vehicle mechanics.

3226. Stress Analysis of a Plane Rocker, by R. W. Gerstner and O. C. Zienkiewicz. (EM) The stress analysis of a plane rocker is used to illustrate a new semi-analytical method, which utilized known elasticity solutions and applies a finite difference corrective solution. The method is applicable to situations in which a body can be separated into geometrically simple shapes for which known analytical solutions are available.

3227. Analysis of Vierendeel Truss by Influence Moments, by Loh-Kwan Chen. (ST) The method described consists of distributing arbitrary fixed-end moments assigned to the chord members at their ends. These moments are induced by an unknown sway in each panel of the girder and are each proportional to the respective values of K/L of the members.

3228. Shear Characteristics of a Marine Clay, by R. A. Spence and T. E. Glynn. (SM) An account is presented of laboratory investigations of the rate of build-up of pore pressure and its effect on the shear strength of a sensitive marine clay in triaxial testing.

3229. Dynamic Behavior of Cantilever Bridges, by R. K. Wen and T. Toridis. (EM) The elastic free vibrations and response to moving forces of three-span cantilever bridges are studied by the method of modal analysis. Influences of the geometry of the structure and the load speed are examined.

3230. Studies of a New Hollow-Square Concrete Block, by S. Nagai. (WW) The greater stability from wave attack and distinguished ability to absorb wave energy of the hollow-square concrete block with four legs is described. Experimental and practical results of the block as used on rubble-mound breakwaters are presented.

3231. Computer Solution of Storm Surges, by Harold R. Davis. (WW) Computation of storm surges and the various criteria necessary for its solution are examined. A computer solution is compared with the manual method. The potential use of a computer method in future storm stage prediction is also examined.

3232. Direct-Shear Test for Effective-Strength Parameters, by Hugh M. O'Neil. (SM) Direct shear tests were performed on several clays using a device that permits accurate control of drainage. This theoretically permits pore pressure to be held at zero so as to allow the determination, through rapid shear, of the strength of clay in terms of effective stresses.

3233. Influence Coefficients for Two-Hinged Arches, by Charles A. Miller and Sidney A. Guralnick. (ST) Expressions for bending moment and deflection influence coefficients are derived by methods of virtual work for two-hinged parabolic arches with a secant variation of moment of inertia. Essential assumptions made are: Change of arch geometry during deformation does not influence bending moments in arch; and only flexural strain energy terms are included.

3234. Water Forces on Flexible Oscillating Cylinders, by Alan D. K. Laird. (WW) Exploratory investigation of support flexibility of 2-in. vertical cylinders performing 1-ft amplitude oscillations in water showed drag and lift forces over 4½ times uniform motion drag. More flexible cylinders showed lift frequencies at eddy frequencies; stiffer cylinders oscillated at their natural frequencies.

3235. Deformations of Structures at Ultimate Load, by Heinz G. Juhl. (ST) A simple step-by-step method for computing deformation of steel structures at ultimate load is outlined. The application of the method and the tabulation of the computation is shown by example.

3236. Runways and Taxiways for Supersonic Transports, by Robert Horonjeff. (AT) The paper suggests the length and width of runways, the width and radii of taxiways, and the thickness of pavements required for supersonic transports. A method is developed for determining the radii of new taxiways and the widening that might be required for existing taxiways.

3237. Stability of Space Frames by Computer Analysis, by John D. Renton. (ST) The paper presents stiffness matrices for the elastic stability of space frames making allowance for gusset plates. These are embodied in a computer program and predictions obtained are shown to agree well with experimental work.

3238. Flexible Pavement Design Criteria, by R. G. Ahlvin. (AT) A working reference is presented by which individual CBR-design curves for flexible pavements can be produced for any desired combination of load, number, and spacing of wheels, tire pressure, and load repetitions.

3239. Biaxial Eccentricity: An Analytical Approach, by E. Czerniak. (ST) Methods of solution of eccentricity problems in structural engineering are illustrated through examples of reinforced concrete rectangular sections subjected to biaxially eccentric loads. Procedures are in a form suitable for use with digital computers, and are applicable to both straight-line and ultimate-strength methods.

3240. Forecast of Air Transport for 1980, by R. Dixon Speas and Leroy Simpson. (AT) Characteristics of future long-range transport aircraft are forecast with particular reference to influence on ground facility planning. Historical trends of characteristics are reviewed and growth of passenger traffic and peak hour demands on airport facilities is examined.

3241. Consistent Approximations in Shell Theory, by Placido Cicala. (EM) Essential properties of different types of homogeneous stress states for shells of arbitrary form are presented. The combination of these particular solutions capable of satisfying boundary conditions fixing contour forces is determined.

3242. Energy Relationships in Plastic Steel Structures, by B. Rawlings. (ST) An examination is made of the relationships among various components of energy involved when a member of steel of rectangular cross section is bent beyond the yield point.

3243. Strengthening Existing Airport Pavements, by Ronald D. Hutchinson and Thurman R. Wathen. (AT) The methods that have been developed by the Corps of Engineers and that are being used to strengthen pavements at military airfields are described. Design criteria for the different methods of strengthening are given and the basis for the development of the criteria are either presented or referenced.

3244. Discussion of Proceedings Papers 2728, 2743, 3017, 3026, 3028, 3059, 3094. (EM) Ming L. Pei on 2728. Kristoffer Apeland on 2743. Yehuda Stavsky on 3017. Philip G. Drazin and Louis N. Howard on 3026. Jorge I. Bustamante on 3028. Bruce G. Johnston on 3059. Myron E. Lunchick on 3094.

3245. Airport Location in Relation to Urban Transport, by Richard H. Jordan. (AT) Long ground-access time for the short-haul and medium-haul traveller suggests that long-haul traffic be concentrated on the newer, large, outlying airports and that older close-in terminals, both commercial and military, be retained and renovated for the shorter-haul passengers.

3246. Symposium on Teaching of Materials: Material Behavior Significant to Engineers, by J. M. Frankland. (EM) The engineer must know what significant questions to ask materials specialists in order to interpret the results of mechanical tests and to relate these to service conditions. Emphasis in teaching should be on the experimental facts, rather than on speculative hypotheses.

3247. Symposium on Teaching of Materials: New Type of Course on Engineering Materials, by Joseph Marin. (EM) A first course in engineering materials dealing with "Mechanical Behavior of Engineering Materials" is described. The material that can be covered in the course and illustrations of engineering developments that have emphasized the importance of subject matter are included.

3248. Symposium on Teaching of Materials: Structures and the Teaching of Materials, by Lawrence H. Van Vlack. (EM) Analogies are made between the teaching of structural design and the teaching of materials of engineering on the basis of (1) instructional procedures, (2) basic principles, (3) instructional examples, and (4) engineering requirements.

3249. Strengthening Breakwater at Vizagapatam, by M. G. Hiranandani, C. V. Gole, and Y. D. Pendse. (WW) Tests are described that were conducted in a wave flume with various types of armor units, such as stones, tetrapods, and tribars, in order to evolve a suitable protective layer for strengthening the breakwater and to study the relative merits of various types of armor units.

3250. Discussion of Proceedings Papers 2734, 2792, 2793, 2878, 2881, 2885, 2902, 2954, 3008, 3020, 3169. (SM) Kenneth A. Linell, Frederick E. Crory, James F. Haley, and Charles A. Pickering, Jr., and W. C. Jensen on 2734. Bruce E. Clark on 2792. John P. Gnaedinger on 2793. Basil W. Wilson on 2878. John H. Schmertmann and John R. Hall, Jr., on 2881. K. Y. Lo on 2885. Ardis White, James A. Cheney, and C. Martin Duke on 2902. M. Arnold on 2954. Dana D. Leslie and John M. Bird, Robert F. Legget, Thomas F. Thompson, and R. H. Grice on 3008. C. N. Nagaraj and A. Sridharan, W. D. Liam Finn, and R. W. Cunny and R. C. Sloan on 3020. W. G. Holtz and H. J. Gibbs on 3169.

3251. Discussion of Proceedings Papers 2460,

2774. (AT) August W. Compton on 2460. A. A. Eremin and John C. Houbolt on 2774.

3252. Mechanics of Pipe Flow Following Column Separation, by Wen-Hsiung Li. (EM) In studying the flow in a pipe after column separation, conditions for the collapse of the vapor column are established. Two discontinuities of the vapor-liquid interface may develop. Water-hammer pressure generated on closure of the vapor column may be computed without considering interface spread.

3253. Discussion of Proceedings Papers 2507, 2815, 2821, 3046, 3050. (WW) Robert Q. Palmer on 2507. Michinori Kurihara on 2815. Basil W. Wilson on 2821. D. M. Thomas on 3046. P. W. Roberts and Virgil Blancato, Shu-t'ien Li, and A. L. L. Baker on 3050.

3254. Discussion of Proceedings Papers 2222, 2608, 2638, 2721, 2779, 2843, 2879, 2906, 2953, 2970, 3010, 3016, 3022, 3023, 3045, 3049, 3053, 3054, 3055, 3064, 3104, 3167. (ST) Fritz Stüssi on 2222. G. D. Base and R. E. Rowe on 2608. Arne Selberg, S. O. Asplund, and John Szidarovszky on 2638. Otakar Ondra on 2721. Frank Baron on 2779. Hsuan Loh Su on 2843. Frank Baron and Anthony G. Arioto on 2879. Irving Fader on 2906. Movses J. Kaldjian on 2953. Paul L. Kopsell and Fred Ritterhause on 2970. A. A. Toprac on 3010. A. Ferrara and T. V. Galambos on 3016. Amos Atlas on 3022. M. Reise on 3023. N. C. Lind on 3045. K. R. Patel and Max Kurtz on 3049. Phillip L. Gould and J. B. Martin on 3053. W. Y. J. Shieh on 3054. Gideon P. R. Von Willich and Chia-Tsun Chen on 3055. N. C. Lind on 3064. Francisco Gomez-Perez on 3104. Thomas J. Ogburn, III, on 3167.

September

Journals: Construction, Highway, Hydraulics, Irrigation and Drainage, Power, Sanitary Engineering.

3255. Synthetic Peak Discharges for Design Criteria, by Hugh C. Getty and James H. McHughs. (HY) The relationship of peak discharges of various frequencies to multiples of the unit hydrograph peak at various stations is analyzed. A generalized method for determining design discharge for various frequencies is also presented.

3256. Behavior of Volcanic Soils in Highway Construction, by Jorge Ernesto Erdmenger. (CO) Field and laboratory observations relating to pumice sand are reported, in order to develop specifications for this volcanic soil as related to contract construction, as well as standards for acceptable material, field control, and satisfactory construction procedures when using the material.

3257. Electrical Determination of the Moisture in Sand, by T. A. Sandover. (CO) The electrical gage described will register immediately the moisture content of sand or any similar inert granular material by means of the conductivity of the water. A number of sand samples have been tested and the results are presented in graphical form.

3258. Optical Current Meter, by Winchell Smith and Glen F. Bailey. (HY) The optical current meter is a stroboscopic device developed to measure surface velocities in open channels without immersion of equipment. Velocity measurements are made from an observation point above the stream by looking down at the water surface through the meter and synchronizing the speed of rotating mirrors with that of the water surface.

3259. Effect of Velocity of Seepage and Its Measurement, by Herman Bouwer, L. E. Myers, and R. C. Rice. (IR) Model studies showed no direct effect of velocity in a canal on seepage. The average pressure head around seepage meters in flowing water, however, was less than that caused by the water surface. Factors are given to correct this disturbance.

3260. Stabilization Pond as a Nitrate Reducing Reactor, by E. R. Hermann. (SA) In Considering the stabilization pond as a nitrate reducing reactor, pilot plant studies were made under controlled conditions in which NO_3-N concentrations ranging from 0.5 mg/1 to 120 mg/1 were added to an influent waste-water. Parameters were measured from which performance and efficiency curves were developed for the reactors.

3261. Basic Considerations in Water Resources Planning: Progress Report of the Committee on Water Resources Planning of the Hydraulics Division. (HY) An inventory of the principles, techniques, problems, and areas of deficiency in the field of water resources planning has been compiled.

3262. Civil Engineer's Responsibilities in Design of Steam Electric Plants, by E. Ireland. (PO) The civil engineer's function includes areas of planning beyond the production of sound designs that conform to layouts that are prepared by others.

3263. Depth-Discharge Relations in Alluvial Channels, by D. B. Simons, E. V. Richardson, and W. L. Haushild. (HY) Form of bed roughness in alluvial channels of laboratory and field streams varies with changes in fluid, flow, channel, characteristics of bed material, and sediment load. As bed roughness changes, change occurs in resistance to flow, reflected by change in stage, depth, velocity, and stage-discharge and depth-discharge relationships.

3264. Guide for the Development of Flood-Plain Regulations: Progress Report of the Task Force on Flood Plain Regulations of the Committee on Flood Control of the Hydraulics Division. (HY) The report attempts to provide an understanding of the flood-plain problem in the United States and the technical, social, and legal guides necessary for implementing an effective program at all government levels to regulate land use and development of flood-prone areas.

3265. Civil Engineering Features of Steam Electric Plant Design, by E. A. Kammer and M. J. Hroncich, (PO) The civil engineer is responsible for almost 20% of the value of a steam-electric generating plant. Effective design of elements within his control will greatly contribute to efficiency of the installation and reduced cost of production plant.

3266. Transmission Losses in Natural Stream Valleys, by A. L. Sharp and K. E. Saxton. (HY) An analysis of fifty-seven small flood events on eighteen rivers in the Great Plains indicates that streamflow losses averaged 40% of flood flows between upper and lower stream-gaging stations.

3267. Civil Engineering and the Modern Steam-Electric Station, by A. G. Villepique, W. G. S. Saville, and G. S. Bingham. (PO) This paper emphasizes some features that are incorporated in steam-electric station design to produce a plant type that is suitable, with minor alterations, for many locations having diverse geologic and topographic conditions.

3268. Structural Steel and Concrete Chimneys for Steam Electric Stations, by R. N. Bergstrom and M. Zar. (PO) The two important phases of the design of civil engineering features of steam electric stations that are examined are structural steel and concrete chimneys.

3269. Civil Engineering Features of Power Stations, by Clem G. Merriman. (PO) The approach to and design practices of certain salient civil engineering problems that occur in large central thermal electric generating stations are examined.

3270. Civil Enginering Design on TVA Steam Stations, by Walter F. Emmons and Warren C. Boop. (PO) TVA has 11,550 megawatts of capacity installed or under construction in nine modern steam electric stations constructed since 1949, with individual stations designed for ultimate capacities of from 1,200 megawatts to 4,000 megawatts. The civil engineering design practices developed by TVA in these projects are examined.

3271. Site Layout for Coal-Fired Steam Power Plants, by James Reynolds. (PO) Numerous factors must be considered in obtaining a successful site layout. An approach using evaluated schematics is outlined.

3272. Civil Engineering in Steam Electric Plant Design, by Robert O. Imhoff. (PO) Some of the problems of steam electric plant design that concern the civil engineer are considered.

3273. Boundary Shear Stresses in Curved Trapezoidal Channels, by A. T. Ippen and P. A. Drinker. (HY) Distribution and magnitudes of boundary shear stresses in smooth, curved, trapezoidal channels were investigated. Contour maps of local stresses are given in terms of the mean tractive force of the approach flow, and rate of energy dissipation in channel curves is correlated with local shear intensities.

3274. Volume-Weight of Reservoir Sediment, by Herman G. Heinemann. (HY) Volume-weight of deposited sediment in Sabetha Lake varies considerably, depending on clay content and depth in a deposit, and, to a lesser degree, on distance from the dam and distance from the original thalweg.

3275. Dewatering Carbonate Soils of the Pacific, by Byron J. Prugh and Dumond F. Chalker. (CO) Construction dewatering of various installations at the Nike-Zeus base on Kwajalein posed unique construction problems because of the carbonate origin of the soil and rock; a particular problem was divergent types of soil encountered in limited areas of the atoll islets.

3276. Analyzing Ground-Water Mounds by Resistance Network, by Herman Bouwer. (IR) Presented is a technique for predicting quantitative behavior of ground-water mounds below recharge areas that is applicable to stable or moving mounds, two-dimensional or radial flow systems, and uniform or nonuniform soils.

3277. Simplified Design of a Highway Transition Spiral, by S. Koteswara Rao. (HW) A simplified procedure is suggested for the design of a highway transition. Applying Fresnel's integrals in the mathematical analysis of a spiral yields unit spiral, which reduces the design to a few simple steps.

3278. Auto Trips to the Central Business District, by John A. Dearinger. (HW) Most automobile trips destined to the central business district of a medium-size city originate in the surrounding residential areas. The relative effectiveness of certain measurable trip determinants in predicting the number and purpose of these trips is presented.

3279. Analysis of Synthetic Unit-Graph Methods, by Paul E. Morgan and Stanley M. Johnson. (HY) Results of a study of the relative accuracy with which four synthetic methods reproduce actual unit graphs for twelve Illinois watersheds indicate that synthetic unit graphs may differ greatly from the actual and are not as simple to use as the equations indicate.

3280. Two-Sample Method for Pavement Deflection Survey, by William R. Knight and Jong Ping Chen. (HW) A two-stage method of taking deflection measurements on pavements is described, in which the first stage determines the number of observations required in the second.

3281. Correlation of Future Vehicle and Highway Design, by Kenneth A. Stonex. (HW) Correlation of vehicle and highway design to provide efficient and effective future highway transport depends on forecasting relevant vehicle characteristics and establishing the highway attributes required, including controlled access, capacity, sight distance, wide medians, safe roadsides, and skid resistance.

3282. Navy's Most Powerful Radio Facility, by Norman J. Magneson. (CO) The Navy's most powerful very low frequency radio station, capable of transmitting to surface and subsurface fleet units of the United States Navy in the North Atlantic and Mediterranean, has recently been completed.

3283. Reservoir Mass Analysis by a Low-Flow Series, by John B. Stall. (SA) The generation and use of a nonsequential series of low-flow events, which allows an improved mass-type analysis of a proposed impounding reservoir, is described. Reservoir capacity necessary to meet particular gross draft rates during critical drouths having various recurrence intervals is determined.

3284. Flow of Ground Water to Collector Wells, by Mahdi S. Hantush and Istavros S. Papadopulos. (HY) Analytical solutions for the drawdown distribution around collector wells steadily discharging from homogeneous confined and unconfined aquifers of uniform hydraulic properties are obtained.

3285. Characteristics of the Inlet Hydrograph, by Warren Viessman, Jr., and John C. Geyer. (HY) Results of a study of the relationship between rainfall and runoff for small impervious drainage areas are presented. Information concerning the peak rate of runoff and the time of rise and shape of the hydrograph is included.

3286. Discussion of Proceedings Papers 2948, 3005, 3006, 3007, 3083, 3084. (IR) John F. Mann, Jr., on 2948. R. H. Brooks on 3005. R. A. Dodge, Jr., on 3006. C. E. Busby on 3007. Harry F. Blaney and C. R. Pettis on 3083. E. J. List on 3084.

3287. Discussion of Proceedings Papers 2661, 3033, 3041. (CO) John J. Manning on 2661. Marvin Gates, Robert F. Borg, and John J. White on 3033. Norman N. Stout on 3041.

3288. Discussion of Proceedings Papers 3001, 3036, 3075, 3079, 3080, 3082. (SA) N. C. H. Fischerstrom on 3001. Tim de Jong on 3036. C. E. Keefer on 3075. R. D. Wilroy and R. S. Ingols on 3079. Bayard F. Snow on 3080. H. F. Seidel and E. R. Baumann on 3082.

3289. Discussion of Proceedings Paper 2513. (HW) Wilbur S. Smith on 2513.

3290. Discussion of Proceedings Papers 2429, 2851, 2934, 2981, 2990, 3038, 3039, 3040 3069 3071, 3076, 3077, 3081, 3116, 3188. (HY) Cloyde C. Chambers on 2429. M. H. Diskin on 2851. E. Roy Tinney and D. L. Bassett on 2934. Myron B. Fiering on 2981. John R. Sheppard on 2990. Chia-Shun Yih on 3038. F. L. Blue, Jr., on 3039. S. Logan Kerr and F. V. A. Engel on 3040. M. B. McPherson and M. Joseph Willis on 3069. D. F. Witherspoon, J. Amorocho, R. Robinson Rowe, and Gene E. Willeke on 3071. H. James Owen and Attila A. Sooky on 3076. Roy F. Warner on 3077. Richard Brock on 3081. H. V. Peterson on 3116. Arnold Kent on 3188.

3291. Construction Cost Estimating and Control: Progress Report of the Committee on Estimating and Cost Control of the Construction Division. (CO) Because the size, complexity, and speed of today's construction operations make modern methods of estimating and controlling costs more essential than they have ever been before, up-dating of ASCE's publication, "Construction Cost Control," is being undertaken.

October

Journals: Engineering Mechanics, Soil Mechanics and Foundations, Structural.

3292. Safety of Eccentrically Loaded Reinforced Concrete Columns, by Milik Tichy and Milos Vorlicek. (ST) For statistical design of reinforced concrete, eccentrically loaded sections, a change in the safety concept is needed. The new concept is based on the minimum strength line that can be established for a chosen probability of rupture.

3293. Steady Creep of a Nonhomogeneous Plate, by J. L. Sackman. (EM) The state of stress in a steadily creeping plate loaded only by edge tractions, and having a viscosity coefficient varying in the plane of the plate, is investigated by using the three Maxwell stress functions and a double power series expansion in the nondimensional thickness coordinate and thickness of the plate. The method developed is illustrated.

3294. Specifications for Structural Joints Using ASTM-A325 Bolts: Progress Report of the Task Committee on Riveted and Bolted Joints of the Committee on Metals of the Structural Division. (ST) The Task Committee on Riveted and Bolted Joints, having participated with the Research Council on Riveted and Bolted Structural Joints, recommends discussion of "Specifications for Structural Joints Using ASTM-A325 Bolts," which was revised by the Council.

3295. Force in Smoothly Joined Elastic Half-Planes, by J. Dundurs. (EM) The problem treated is that of an elastic half-plane in smooth contact with a second half-plane and subjected to a concentrated force. The solution is exact within the classical theory of elasticity and is in terms of elementary functions. Explicit formulas are given for the components of stress in Cartesian coordinates. It is also shown that, if an elastic plane loaded by a concentrated force is separated into two half-planes by a smooth cut, the normal stress across the cut is equal to the full plane before cutting.

3296. Dynamic Behavior of Supercritically Loaded Struts, by George W. Housner and Wai Keung Tso. (EM) Analysis is made of the motion of a strut that is subjected to uniform axial force greatly in excess of the Euler critical load. Effects of shear and rotary inertia and the conditions under which they may be neglected are considered. The dominant buckling mode and the maximum modal deflection produced by a blast-type triangular loading (axial) of the strut are explored.

3297. Stability of Plates Under Partial Edge Loadings, by Richard N. White and W. S. Cottingham. (EM) Results are presented of an analytical investigation of the buckling loads of rectangular plates under partial edge loadings. A numerical method is used to solve seven loading cases; the results, for plate aspect ratios of ⅓ to 3, are presented in the form of graphs.

3298. Statistical Analysis of ENR Pile Formula, by Hans A. Agerschou. (SM) Failure loads from 171 load tests for piles with their tip in sand or gravel are compared statistically with the corresponding formula loads as determined by the ENR formula and other formulas. It is demonstrated that the inaccuracy of the engineering news formula by far exceeds that of several other formulas.

3299. Beam Analogy for the Solution of Vierendeel Trusses, by Bernardo Deschapelles. (ST) The existence of a beam of which the shear and bending moment diagrams are equivalent to the bending moment and $EI\Theta$-diagrams of the chord in a Vierendeel truss is demonstrated.

3300. Testing a Light Gage Steel Hyperbolic Paraboloid Shell, by Arthur H. Nilson. (ST) The construction and testing of a hyperbolic paraboloid shell using standard light gage steel roof deck panels is described. Panels are welded intermittently along their seams and they are welded at the external edges to light perimeter members in order to form a doubly-curved shear-carrying membrane. A strong, stiff structure that is of extremely light weight results.

3301. Elastic Strength of Tapered Columns, by Charles M. Fogel and Robert L. Ketter. (ST) Algebraic interaction relationships are obtained for the combination of axial thrust, and bending moments, and slenderness which cause the elastic limit that is being reached at the most highly strained section of a pinended member of variable cross section. Two cross sections, rectangular and I-section, having a negligible web are considered.

3302. Theory of Bearing Capacity of Foundations, by Arpad Balla. (SM) According to this new theory, the sliding surface is composed of plane and circular cylinders. All the conditions of equilibrium are satisfied. The bearing-capacity factors are the functions of the soil properties and the characteristic dimensions of the foundation. The theoretical and the test results are in good conformity.

3303. Analysis of Folded Plates, by David Yitzhaki and Max Reiss. (ST) Folded plates are analyzed by the slope-deflection method. The main system is the folded plate hinged along the joints with the moments at the joints as the unknowns. The slope deflections are adjusted to vary similarly along the structure, independent of the type of load or support conditions.

3304. Nonsymmetrical Snap Buckling of Spherical Cap, by A. Gjelsvik and S. R. Bodner. (EM) The nonsymmetrical snap buckling of uniformly loaded clamped spherical caps is computed by an energy procedure in which single-term approximations are used for the initial and buckled shapes. Nonsymmetrical buckling is shown to govern when the parameter that represents the steepness of the cap exceeds a particular value.

3305. Energy Criterion and Snap Buckling of Arches, by A. Gjelsvik and S. R. Bodner. (EM) A critical analysis is presented of the significance of the energy criterion for systems that exhibit snap buckling. A complete theoretical and experimental analysis of a clamped arch under a centrally concentrated load is performed as an example of such a structural system.

3306. Discussion of Proceedings Papers 2832, 2965, 3097, 3098, 3102, 3158, 3160. (SM) John M. Bird on 2832. William L. Wallace on 2965. D. Hugh Trollope and Alan K. Parkin on 3097. Judson P. Elston on 3098. E. Vey on 3102. J. K. Mitchell, B. V. Ranganatham on 3158. W. H. Gotolski, E. Zolkov on 3160.

3307. Discussion of Proceedings Papers 3013, 3019, 3027, 3057, 3099, 3101, 3154. (EM) Donald F. Young on 3013. L. Tall and F. Estuar on 3019. R. M. Haythornthwaite on 3027. A. R. Oliver on 3057. Giuliano Augusti on 3099. R. F. Rissone and J. J. Williams on 3101. Victor L. Streeter on 3154.

3308. Strength of Prestressed Concrete Pavements, by Yutaka Osawa. (ST) A theoretical method is developed for determining the distribution of stresses and deflections in prestressed concrete pavements beyond conditions to which the elastic theory is applicable. The method is limited to an interior load applied on a pavement that is supported by a dense liquid foundation and prestressed equally in each direction.

3309. Discussion of Proceedings Papers 2645, 2955, 2958, 2967, 3023, 3025, 3045, 3088, 3100, 3162, 3163, 3164. (ST) G. Hondros and J. G. Marsh on 2645. Tseng Huang on 2955. Lawrence R. Burkhardt on 2958. Konrad Basler on 2967. A. C. Scordelis, E. L. Croy, and I. R. Stubbs on 3023, George H. Dell on 3025. Donald J. Butler on 3045. Börge Langefors on 3088. A. A. Eremin on 3100. Frederick L. Ryder on 3162. Richard R. Schindler on 3163. C. K. Wang on 3164.

November

Journals: Hydraulics, Sanitary Engineering, Surveying and Mapping, Waterways and Harbors.

3310. Flow in Noncircular Conduits, by Jamil Malaika. (HY) Turbulent flow was tested in eight rough ducts of various cross-sectional forms. The indications are that the diameter of the inscribed circle is a better linear scale to use in the Nikuradse resistance equations than is the hydraulic diameter, and that the relative hydraulic efficiency may be significantly expressed by the ratio of these two linear dimensions.

3311. Offshore Mooring Island for Supertankers, by V. Blancato and J. H. Finger.

(WW) A new resilient marine fender, utilizing gravity and friction, is applied to two types of breasting platforms. The energy absorption capacity of the fender and the stability of the platforms are analyzed under the effects of berthing impact and winds of gale force.

3312. Spatially Varied Flow from Controlled Rainfall, by Dah-Cheng Woo and Ernest F. Brater. (HY) The purpose of this study was to develop information concerning the mechanics of spatially variable flow produced by rainfall. Friction coefficients were derived from experiments and compared with those obtained without the rain drop effect. A method of deriving flow profiles is presented and results are compared with measured profiles.

3313. Evaluation of Mooring Forces, by Shu-t'ien Li. (WW) Methods are propounded for evaluating mooring forces: Atmospheric disturbances, dynamic current pressure, drag force, impact pull under stimulus of seiche; and those caused by tidal fluctuations, surge motions, waves caused by other ships plying, yawing of berthed vessel, and seismic disturbances; and also the treatment of their synthesis.

3314. Civil Requirements for Topographic Maps, by Robert H. Lyddan. (SU) A prediction is made of future trends in three major aspects of the civilian topographic mapping program of the Geological Survey: Mapping scales, map accuracy standards, and map content.

3315. Military Requirements for Topographic Maps, by Frederick O. Diercks. (SU) Examined herein are military topographic map requirements as influenced by accuracy, weapons, international map standardization agreements, special-use maps, improved map presentation and design, and printing and distribution from the viewpoint of the Army Map Service.

3316. Field Control for Antarctic Mapping, by William H. Chapman. (SU) The performance of field control surveys in Antarctica by the solar line-of-position method and the determination of elevations by altimeter are described. Revised procedures are suggested for future work.

3317. Plotting Positions and Economics of Engineering Planning, by Manuel A. Benson. (HY) The choice of a plotting position in flood-frequency analysis has an effect on economic studies made for planning purposes. The Weibull method furnishes estimates consistent with experience; other methods provide inaccurate guides to project feasibility.

3318. Large-Scale Mapping of Lake Powell, by Clyde D. Gessel and Dwight H. Rutledge. (SU) Analyzed are the requirements, problems, and methods used to obtain maps of the entire reservoir basin and adjacent area of the second largest artificial lake, by volume, in the United States, which was created by Glen Canyon Dam.

3319. Extreme Rainfall Relationships, by D. M. Hershfield. (HY) Empirical descriptions of the significant rainfall factors involved in hydrologic design are presented. The depth-area relations exhibit a definite geographical pattern and one average time-distribution curve is applicable for storms of several durations. The results from several methods for estimating the largest rainfall apt to occur appear dissimilar.

3320. Soil Conservation Measures in River Basin Planning, by C. J. Francis and R. G. Andrews. (WW) The nature and place of the Soil Conservation Service program in river basin planning and development is outlined. Described is the close interrelationship that exists between land treatment measures that encompass the on-farm conservation measures and the off-farm structural measures that retard or control floodwater, provide storage, stabilize grades, and reduce sedimentation.

3321. Economics of Urban Drainage Design, by William J. Bauer. (HY) The concept of continuity is applied (by means of a simple mathematical model) to unsteady flow of storm water in urban areas. New terms are defined, new axioms are stated, and practical examples are given. The volume of excess precipitation is emphasized, and the economic significance of alternative designs is sketched.

3322. Activated Sludge Kinetics and Effluent Quality, by A. W Busch. (SA) Direct reuse by industry of its treated waste is considered, with particular regard to the problem of residual dissolved organics. Process design based on fundamentals is vital to predicting effluent quality. The completely mixed, steady-state environment is effective, but the use of incompetent values as constants in general formulas must be avoided.

3323. Aerobic Digestion of Night Soil, by Wilfredo L. Reyes and Cornelius W. Kruse.

(SA) The physico-chemical characteristics of aerobic digestion of night soil with starting total solids concentrations of 3%, 6%, and 8% are examined herein. Parameters of stabilization measured in detail were volatile matter reduction and carbon dioxide production. Secondary characteristics of odor, color, settleability, and filterability were also studied.

3324. Analog Computer—A Modern Tool in Water Pollution Control, by Lloyd L. Falk. (SA) The applicability of digital and analog computer concepts is briefly compared. The modern analog computer is used in greater detail to solve some of the mathematical models used in the water pollution control field. This type of computer is especially suited for solutions of differential equations and problems in kinetics that, in some cases, are not presently solvable by known mathematic techniques.

3325 Hydraulics of Wells in Unconfined Aquifers, by S. S. McNeary, Irwin Remson, and H. S. C. Chen. (HY) The differential equation describing unsteady radial flow to a well discharging from an unconfined aquifier is solved numerically. The solution is presented as a family of curves suitable for predicting water levels near such a well, and for determining the hydraulic characteristics of unconfined aquifers from properly devised aquifer tests.

3326. All-Versine Highway Spiral Formulas, by G. J. Thornton-Smith. (SU) To spiral angle $\psi = 40°$, all angles and dimensions of a clothoid are approximately interrelated by expressions (F) $(1 + n \text{ vers } \psi)$ in which F is a simple function of a dimension or angle and n is a three-figure coefficient. Errors nowhere exceed 3 sec in angle and 1 in 1,000 linear parts.

3327. Brink Depth for a Circular Channel, by D. C. Smith (HY) The flow conditions at the outlet of a freely discharging circular pipe flowing partly full are examined and explained. Experimental results are used to plot a dimensionless design curve that may be used to calculate discharges for any size of pipe.

3328. Interpretation of Plumbing Test Anomalies, by Joe L. Mogg (HY) An example is described of a pumping test on an aquifer for which the coefficients calculated from time-drawdown and distance-drawdown graphs are not identical. Differences in calculated results can be extremely useful, as, for example, for use by the analyst in further describing or defining an aquifer.

3329. Agricultural Land Drainage and Stream Pollution, by John M. Henderson. (SA) Main consideration is given to the BOD and Population-Equivalent of principal farm animal species. Using the Potomac River as an example, on a raw-waste basis, the farm animal PE was 4.5 times that of the domestic sewage of the human population in 1959.

3330. Package Aeration Plants in Florida, by Ralph H. Baker, Jr. (SA) Results of a study concerning the efficiencies of small rated aeration and contact stabilization package sewage treatment plants in Florida are presented. Several different manufacturers' package treatment plants are examined, together with the engineers' design criteria and the laboratory results covering the operation of these units.

3331. Stability Aspects of Flow in Open Channels, by Francis F. Escoffier and Marden B. Boyd. (HY) A series of charts for aid in the design of open channels is presented. An important feature of the charts is that they enable the designer to determine whether the flow in a given channel will be steady or pulsating.

3332. Control of Alluvial Rivers by Steel Jetties, by E. J. Carlson and R. A. Dodge, Jr. (WW) Field and laboratory studies were conducted to refine the methods used in the design of steel jetty fields for river alinement. A set of dimensionless friction head-loss curves, verified by model studies, is developed and described. Using the curves and reconnaissance field data, a method is given for predicting the changes in a river bed after the designed jetty field is installed.

3333. Billion-Dollar River Clean-Up, by Edward J. Cleary. (SA) The origin and activities are presented of the Ohio River Valley Water Sanitation Commission, which has been engaged in an interstate pollution control program since 1948. Details are given in reference to operations of the agency and the nature and scope of the programs it has undertaken.

3334. Survey Control at Glen Canyon Dam, by Howard L. Fink. (SU) The development of horizontal and vertical survey control for the investigation and design and construction phases of a 710-ft high concrete arch dam is described. Some specific survey problems are reviewed; solutions and methods that are used are described.

3335. Discussion of Proceedings Papers 2733, 2821, 2876, 2883, 2980, 2987, 2989, 3046, 3050, 3114, 3115, 3126, 3128, 3141. (WW) H. W. Reeves on 2733. Basil W. Wilson on 2821.

Shu-t'ien Li on 2876. Robert E. Hickson on 2883. Robert C. Woodson on 2980. John S. McEwan on 2987. William Whipple, Jr., Forney W. Fleming, and Charles D. Curran on 2989. Basil W. Wilson on 3046. B. F. Saurin and Basil W. Wilson on 3050. Robert Q. Palmer and Clarence S. Fujii on 3114. J. F. Ripkin on 3115. R. F. Buffington on 3126. Thorndike Saville, Jr., and Madhav Manohar on 3128. I. Alterman on 3141.

3336. Discussion of Proceedings Papers 3079, 3117, 3201. (SA) William E. Dobbins, and Donald R. F. Harleman and E. R. Holley, Jr., on 3079. K. J. Ives, James M. Morgan and Werner Stumm, and R. F. Packham on 3117. Ralph Stone on 3201.

3337. Discussion of Proceedings Papers 2365, 2702. (SU) Charles M. Lamont on 2365. James M. Tuttle on 2702.

3338. Discussion of Proceedings Papers 2863, 2927, 2943, 2983, 2992, 3069, 3071, 3077, 3081, 3109, 3111, 3122, 3135, 3143, 3188, 3194. (HY) Gene R. Fiala and Maurice L. Albertson on 2863. Eduard Naudascher on 2927. Mahdi S. Hantush on 2943. James A. Liggett on 2983. Paul Baumann on 2992. W. H. Espey, Jr., Neal E. Minshall and D. A. Woolhiser, and Donald VanSickle on 3069. W. H. Espey, Jr., and S. P. Sauer on 3071. M. B. McPherson on 3077. K. D. Matthews and William R. Barr on 3081. D. R. F. Harleman, R. R. Rumer, Jr., and J. A. Hoopes on 3109. T. Blench, H. A. Einstein, and I. W. McCaig and J. F. Fulton on 3111. Praxitelis A. Argyropoulos, N. Rajaratnam, and T. Sitki Bursali on 3122. Franklin DeFazio, I. W. McCaig and F. H. Jonker, and B. A. Sutton on 3135. Praxitelis A. Argyropoulos, Edward J. Groscurth, and Dagan (Drimmer) Gedeon on 3143. William P. Jones, Jr., and Charles D. D. Howard on 3194.

December

Journals: Engineering Mechanics, Irrigation and Drainage, Power, Soil Mechanics and Foundations, Structural.

3339. Use of T-1 Steel for Oahe Spiral Cases, by William J. Rheingans. (PO) The substitution of field-welded spiral cases using T-1 steel plate for the riveted plate steel cases requested in the original specifications for seven hydraulic turbines for the Oahe Reservoir of the Corps of Engineers, United States Army, resulted in a saving of approximately $750,000,000.

3340. Sudden Enlargements in Pipelines, by James W. Ball. (PO) Hydraulic characteristics of sudden enlargements in pipelines delineated by laboratory tests are examined. Examples of effectiveness as energy dissipators are given. Cavitation potential and methods of preventing cavitation damage to water-passage walls are considered. The possible use of sudden enlargements in series for turbine bypasses is mentioned.

3341. Suggested Specifications for Structures of Aluminum Alloys 6061-T6 and 6062-T6: Report of the Task Committee on Lightweight Alloys of the Committee on Metals of the Structural Division. (ST) The specifications cover allowable stresses, design rules, and fabrication procedures for structures built of the aluminum alloys known commercially as 6061-T6 and 6062-T6.

3342. Suggested Specifications for Structures of Aluminum Alloys 6063-T5 and 6063-T6, Report of the Task Committee on Lightweight Alloys of the Committee on Metals of the Structural Division. (ST) The specifications cover the allowable stresses, design rules, and fabrication procedures for structures built of the aluminum alloy designated as 6063-T5 and 6063-T6.

3343. Continuous Structures Loaded Normal to their Plane, by A. Diwan. (ST) The method of shear and torsion analogs is extended to multiple bent continuous structures using equivalent elastic systems for lateral loads normal to the plane. No simultaneous equations are required for the solution of single or multiple bent structures. Two numerical examples are given.

3344. John Day Lock and Dam: Foundation Investigations, by Charles J. Monahan. (PO) Correlation of field and office studies for selection of the site of John Day Dam are examined. Latent subsurface conditions having great effect on layout and cost are described. Field and office studies were conducted as successive concurrent approximations in order to minimize time and expense.

3345. Direct Design of Plate and Shell Structures, by John F. Brotchie. (ST) A concept for the direct design of structures is introduced and is applied to the design of plates and shells. A desired behavior is selected as a design criterion, and the proportions of the structures are determined directly to satisfy it. The concept may be applied to homogeneous, reinforced concrete, and prestressed concrete structures and allows optimum behavior and maximum material economy to be obtained.

3346. Ground Displacements From Air-Blast Loading, by Stanley D. Wilson and Earl A. Sibley. (SM) A method is outlined for predicting free-field horizontal and vertical displacements resulting from the air-blast effects of a nuclear detonation. Emphasis is placed on procedures for determining the pertinent physical properties of real soils rather than on idealized behavior of perfectly elastic solids. The weaknesses of the method are presented.

3347. Inelastic Wave Propagation in Soil Columns, by Werner Heierli. (SM) A study is made of the propagation of stress waves in nonlinear, inelastic columns of soils. Dynamic stress-strain properties of the soils are determined. Stresses

and particle velocities as functions of time and depth in the soil column are computed theoretically, and the propagation of the wave is observed and compared to the theoretical predictions. The methods are applied to problems of underground shelters and charts are given for computing attenuation effects and surface displacements for special cases.

3348. Structural Design Practices for Tainter Crest Gates, by Carl Tommerup. (PO) Design features of tainter crest gates are reviewed. Some reasons for weight differences in gates of comparable size and material are presented. Figures are presented indicating the forces, moments, and deformations considered in the design of the leaf with accessories, the arm system, trunnions, and anchorages.

3349. Determining the Capacity of Bent Piles, by Sidney M. Johnson. (SM) A method is presented for determining the load-carrying capacity of piles that are bent during driving. The procedure is general in its application, is equally applicable to the analysis of both friction and end-bearing piles, and takes account of the relative stiffness of the pile and soil and of variations in properties of pile and soil.

3350. Buckling of Shear Buildings, by Pasala Dayaratnam. (ST) Buckling of structures under the assumption of their being shear buildings is considered with an imaginary spring imposed at each floor level. The first mode of buckling and flexibility method from which the minimum the maximum eigenvalue are calculated by the buckling load is determined. A graph showing buckling load against the number of stories of a simple building is presented.

3351. Extended Frozen Stress Method, by Joseph Schwaighofer. (EM) The well-known frozen stress method of three-dimensional photoelasticity has been extended. The extended method facilitates the photoelastic study of thin members in compression, and permits, in conjunction with the conventional method, evaluation of the influence of Poisson's ratio on the stress distribution.

3352. Plastic Buckling Pressure for Spherical Shells, by M. E. Lunchick. (EM) A solution for the plastic axisymmetric buckling of thin-walled spheres under hydrostatic pressure is derived. The theory accounts for strain-hardening of material and changes of Poisson's ratio in the plastic range. The buckling equation reduces to the classical, small-deflection elastic solution for Poisson's ratio other than ½.

3353. Model Studies of a Concrete Hyperbolic Paraboloid, by Allen Thurman and George Herman. (ST) Stresses and deflection tendencies produced in a concrete hyperbolic paraboloid model by uniform, non-symmetrical, and concentrated loads are graphically presented. The model actions include diaphram-to-edge beam action, vertical and horizontal actions of edge beams, and action of main convex and concave parabolas.

3354. Compacted Loessial-Soil Linings, by Chester W. Jones and C. A. Lowitz. (IR) Some density decrease does occur in Nebraska, loessial-type soil used in compacted canal linings resulting from canal operation and climatic effects, but the seepage through the lining is still well within acceptable limits. Laboratory tests show the relationship between soil density and corresponding permeability.

3355. Lateral Stiffness of Infilled Frames, by Bryan Stafford Smith. (ST) An approximate method for predicting the lateral stiffness of single and multi-story infilled frames is proposed. The infill is assumed to act as a diagonal strut of which the effective width depends on the length-to-height ratio of the infill. The stiffness of the equivalent frame is then calculated by a strain-energy method.

3356. Soil Stabilization with Cement and Sodium Additives, by Za-Chieh Moh. (SM) Past research has shown that the effectiveness of cement stabilization of soils can be substantially improved by the incorporation of a small amount of alkali sodium compounds that form insoluble products with calcium. An investigation to explain the causes of stabilization of soils by cement, and the mechanism of the action of the sodium additives in altering the properties of soil-cement are described.

3357. Network Analogy for the Truss Problem, by W. R. Spillers. (EM) A mathematical analogy is made between the network problem and the truss problem leading to a formulation of the truss problem that is similar to the node method for a network. Applications for digital computers are indicated. Future applications of Kron's techniques are examined.

3358. Metallic Dome-Structure Systems, by Shu-t'ien Li. (ST) Presented herein is a review of domes from the ancient sacred masonry dome to contemporary metallic dome structures; their functional applications and basic geometrics; principal types in use treated, from a unified and comparative structural view point; the proposed integral-skin system; compatible criteria for analysis; and salient remarks on design, fabrication, and erection.

3359. Limitations of Metergates, by James W. Ball. (IR) The hydraulic characteristics of metergates and their limitations are examined, and methods of minimizing the errors introduced by physical and hydraulic characteristics are presented. Also included is an evaluation of the metergate as a measuring device for water in irrigation distribution systems.

3360. Water Supply for the Panama Canal, by E. M. Browder, Jr., and Robert D. Brown, Jr. (PO) This paper reviews the water supply operating problems of the existing Panama Canal and several possible solutions to meet the increasing demand over the next 30-40 years are presented.

3361. Soil-Cement as Slope Protection for Earth Dams, by W. G. Holtz and F. C. Walker. (SM) High cost of riprap facings in certain areas has necessitated research investigations for

other methods of slope protection. Results of a 10-yr performance test of soil-cement slope protection at Bonny Dam, Colo., were evaluated. From this, the mix design, structure design, and construction procedures were designated for Merritt Dam, Nebr.

3362. Frames Combined with Shear Trusses Under Lateral Loads, by Hannskarl Bandel. (ST) The elastic analysis of multi-story rigid frames combined with vertical shear trusses or walls subjected to lateral loads is examined. The virtual work equations are derived for deformation functions, which are approximated by power series. This procedure results in a drastic reduction of the number of redundants, which is characteristically high in the systems under consideration.

3363. Analysis of Triangular Bracket-Type Plates, by Charles G. Salmon. (EM) The elastic stability of triangular bracket plates is analyzed using a generalized application of the Rayleigh-Ritz energy method, wherein minimum boundary geometry restrictions are satisfied by the displacement functions, but not the equilibrium conditions on the boundaries. Power series expressions for the three coordinate displacements are used in a large-deflection theory application.

3364. Lateral Bracing Force of Steel I Beams, by Campbell Massey. (EM) An analytical and experimental investigation of the magnitude of the bracing force required to prevent lateral buckling of steel I beams, either elastic or inelastic, under uniform bending moment.

3365. Space Frame Analysis by Matrices and Computer, by Kurt Eisemann, Lin Woo, and Saul Namyet. (ST) The structural theory and computational techniques used in a computer program that performs elastic analyses of large three-dimensional frames are described. For each member-end, the program determines the six forces and displacements. Member-ends may have fixed, flexible, or free components. Loads and reactions may act in arbitrary directions.

3366. Basic Experiment into Soil-Structure Interaction, by Robert V. Whitman and Ulrich Luscher. (SM) The collapse condition of flexible tubes, surrounded by a thin layer of sand and subjected to external static pressures, was investigated experimentally and theoretically. The investigation involved the study of the two components, a hollow sand cylinder and a cylindrical tube, as well as of the composite sand-tube system.

3367. On the Stability of Granular Masses, by F. Laszlo. (EM) The stability of the surface layer of models of granular masses of cylinders or spheres is investigated. The cylinders and spheres are assumed to possess perfect shapes and, in general, identical sizes.

3368. Symposium on Pumped Storage: Development of Reversible Pump-Turbines, by M. Braikevitch, D. Hartland, and R. A. Strub. (PO) Problems encountered in the evolution of single-runner reversible pump-turbines are reviewed, and outlines are presented of the considerations that apply in the development of machines for maximum over-all economy.

3369. Symposium on Pumped Storage: Foreign Pumped Storage Projects, by Richard D. Harza. (PO) Typical modern installations of pumped storage power plants are described, the types of special hydraulic equipment are mentioned, and comparisons are made between foreign and United States pumped storage practice.

3370. Symposium on Pumped Storage: American Pumped Storage Equipment and Operation, by Frank E. Jaski. (PO) The applications of pumped storage hydroelectric power in North America are described, and particularly with reversible pump-turbines. Problems in starting and operation are described, and information that is necessary for making the proper selection of capacity and speed is given.

3371. Plastic-Lined Mole Drains for Irrigated Areas, by William W. Donnan and V. S. Aronovici. (IR) Field tests and some field experience show that thin-walled, plastic-lined mole drains used for drainage of agricultural land can be used in the irrigated West, if: (1) Installation is made only in clay soils; (2) care is taken to prevent crushing after installation by heavy machines; and (3) the land is flooded in order to bring the soil into repose around the plastic liner. In sandy soils, the drains clog and collapse because of migration of sands into the liner.

3372. Comparisons of One and Two Specimen CFS Tests, by John H. Schmertmann. (SM) Comparative one and two specimen CFS tests were performed on duplicate specimens of a variety of soils. The soils range from Ottawa sand to an extruded clay with a PI of 105%, and undisturbed soils are included. The results support the validity of the one-specimen test procedure, which has important practical advantages. Also examined is the possibility of the existence of an Equation of State for soils.

3373. Analysis of Primary and Secondary Consolidation, by Harvey E. Wahls. (CM) With the aid of laboratory consolidation tests and rheological models, a consolidation equation is developed that agrees with classical consolidation theory when secondary effects are negligible; provides a method of analysis when secondary effects predominate; and explains the effects of the pressure increment ratio. Curve fitting procedures are presented as well.

3374. Discussion of Proceedings Papers 2579, 2852, 2979, 2993, 2998, 3123, 3130, 3137, 3142, 3148, 3186, 3191, 3192, 3193, 3204. (PO) Richard D. Harza and Robert F. Edbrooke on 2579. Adolph J. Ackerman, W. G. Schulz, Donald P. Thayer, and J. J. Doody on 2852. J. Edgar Revelle and John N. Pirok on 2979. Warner W. Wayne, Jr., on 2993. Y. M. Yevdjevich on 2998. Harlan F. Harris on 3123. Joseph R. Arena on 3130. Harold J. Petersen, C. W. Priest, H. P. Cadario, Adolf A. Meyer, Stanley Moyer, R. A. Baker, Theodore Baumeister on 3137. Adolph A.

Sutko, I. W. McCaig, Henry M. Paynter on 3142. Michael Spero, Hibbert Hill on 3148. Raoul Sabljak on 3186. Roy F. Bessey, W. Hiatt and R. E. MacDonald on 3191. John Umstead on 3192. Joseph R. Arena on 3193. Adolf A. Meyer on 3204.

3375. Discussion of Proceedings Papers 3009, 3018, 3028, 3094, 3095, 3177, 3229. (EM) Alfredo H.-S. Ang and Wallace S. Prescott on 3009. J. W. Delleur and A. A. Sooky on 3018. Moshe F. Rubinstein and Walter C. Hurty on 3028. John J. Burns, Jr., on 3094. S. Corrsin on 3095. A. A. Eremin on 3177. Rudolf K. Bernhard on 3229.

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"Direct Design of Plate and Shell Structures," by John F. Brotchie (Dec 62 ST6:127:3345)
"Safety of Eccentrically Loaded Reinforced Concrete Columns," by Milík Tichý and Miloš Vorlíček (Oct 62 ST5:1:3292)
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"Mechanics of Pipe Flow Following Columns Separation," by Wen-Hsiung Li (Aug 62 EM4:97:3253)
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"Boundary Shear Stresses in Curved Trapezoidal Channels," by A. T. Ippen and P. A. Drinker (Sept 62 HY5:143:3273)
"Compacting a Dam Foundation by Blasting," by Charles E. Hall (June 62 SM3:33:3160)
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"Construction Economy Through Contract Adminstration: Progress Report of the Special Committee of the Construction Division of the San Francisco Section," C. T. Blair, Chmn (Jan 62 CO1:1:3033)
"Construction Planning of Mammoth Pool Project," by George W. Saul (Jan 62 CO1:13:3034)
"Design and Construction of Tuscarora Power Plant Bridge," by Charles C. Zollman, Walter Podolny, Jr., and Eric L. Dagseth (Jan 62 CO1:25:3037)
"Dewatering Carbonate Soils of the Pacific," by Byron J. Prugh and Dumond F. Chalkers (Sept 62 CO2:41:3275)
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"Overhaul of Locks in the Panama Canal," by William A. Carter and Robert D. Brown, Jr. (Feb 62 WW1:29:3047)
"South America's First EHV Transmission Line," by A. G. Villepique (July 62 PO2:57:3192)
"Titan ICBM Hardened Facilities," by Marvin J. Kudroff (Jan 62 CO1:41:3041)

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"Symposium on Pumped Storage: Site Investigations of Pumped Storage Facilities," by Milton G. Salzman (July 62 PO2:233:3205)

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"All-Versine Highway Spiral Formulas," by G. J. Thornton-Smith (Nov 62 SU1:41:3326)
"Hydraulics of Wells in Unconfined Aquifers," by S. S. McNeary, Irwin Remson, and H. S. C. Chen (Nov 62 HY6:115:3325)
"Simplified Design of a Highway Transition Spiral," by S. Koteswara Rao (Sept 62 HW2:1:3277)

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"John Day Lock and Dam: Planning and Site Selection," by Glenn H. Von Gunten and John F. Bruce (July 62 PO2: 35:3191)
"Side-Channel Spillway Design," by Harold S. Farney and Adolfs Markus (May 62 HY3:131:3143)
"Survey Control at Glen Canyon Dam," by Howard L. Fink (Nov 62 SU1:51:3334)

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"Soil-Cement as Slope Protection for Earth Dams," by W. G. Holtz and F. C. Walker (Dec 62 SM6:107:3361)

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DOCKS AND WHARVES
"Berthing and Mooring Forces," by Glenn B. Woodruff (Feb 62 WW1:71: 3050)
"Dynamic Response and Stability of Piers on Piles by James Michalos (Aug 62 WW3:61:3221)

DRAINAGE
"Agricultural Land Drainage and Stream Pollution," by John M. Henderson (Nov 62 SA6:61:3329)
"Analyzing Ground-Water Mounds by Resistance Network," by Herman Bouwer (Sept 62 IR3:15:3276)
"Bulkhead Test Program at Port of Toledo, Ohio," by Peter A. Hakman and Warren M. Buser (June 62 SM3:151: 3176)
"Contra Costa Energy Dissipator," by S. Russell Keim (Mar 62 HY2:109:3077)
"Critical Flow in Terms of Hydraulic Equivalents," by Francis S. Y. Lee (June 62 IR2:1:3155)
"Depth and Spacing of Tile Drain Systems," by H. Y. Hammad (Mar 62 IR1: 15:3084)
"Dewatering Carbonate Soils of the Pacific," by Byron J. Prugh and Dumond F. Chalkers (Sept 62 CO2:41:3275)
"Drainage Wells in Leaky Water-Table Aquifers," by Mahdi S. Hantush (Mar 62 HY2:123:3078)
"Economics of Urban Drainage Design," by William J. Bauer (Nov 62 HY6:93:3321)
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"Evaporation at High Elevations in California," by Leonard L. Longacre and Harry F. Blaney (June 62 IR2:33: 3172)

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"Ground-Water Technology and Litigation Problems," by Edward D. Jenkins and Edward A. Moulder (June 62 IR2: 21:3166)
"Hydraulic Roughness of Corrugated Pipes," by Charles R. Neill (May 62 HY3:23:3111)
"Hydrologic Design of Culverts," by Ven Te Chow (Mar 62 HY2:39:3071)
"Mechanics of Evapo-Transpiration," by David W. Hendricks and Vaughn E. Hansen (June 62 IR2:67:3182)
"Plastic-Lined Mole Drains for Irrigated Areas," by William W. Donnan and V. S. Aronovici (Dec 62 IR4:39:3371)
"Utilization of Water and Irrigation in Israel," by Harry F. Blaney (June 62 IR2:55:3178)

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"Fresh and Salty Ground Water in Long Island, N. Y.," by Norbert J. Lusczynski and Wolfgang V. Swarzenski (July 62 HY4:173:3207)

EARTHQUAKES
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"Seismic Forces on Engineering Structures," by Frank Neumann (Apr 62 ST2:81:3100)

ECONOMICS
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"Construction Economy Through Contract Administration: Progress Report of the Special Committee of the Construction Division of the San Francisco Section," C. T. Blair, Chmn (Jan 62 CO1:1:3033)
"Economics of Composting Municipal Refuse," by Hillel I. Shuval (July 62 SA4:47:3201)
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"Use of T-1 Steel for Oahe Spiral Cases," by William J. Rheingans (Dec 62 PO4:1:3339)

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"Symposium on Teaching of Materials: New Type of Course on Engineering Materials," by Joseph Marin (Aug 62 EM4:83:3247)
"Symposium on Teaching of Materials: Structures and the Teaching of Materials," by Lawrence H. Van Vlack (Aug 62 EM4:89:3248)

ELASTICITY
"Analysis of Triangular Bracket-Type Plates," by Charles G. Salmon (Dec 62 EM6:41:3363)
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"Continuous Structures Loaded Normal to Their Plane," by A. Diwan (Dec 62 ST6:97:3343)
"Deformation of Structures at Ultimate Load," by Heinz G. Juhl (Aug 62 ST4:69:3235)
"Elastic Strength of Tapered Columns," by Charles M. Fogel and Robert L. Ketter (Oct 62 ST5:67:3301)
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"Force in Smoothly Joined Elastic Half-Planes," by J. Dundars (Oct 62 EM5:25:3295)
"Lateral Bracing Forces of Steel I Beams," by Campbell Massey (Dec 62 EM6:89:3364)
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"1961 ASCE Salary Survey: Report of the Committee on Employment Conditions of the Department of Conditions of Practice, ASCE," William J. Carroll, Jr., Chmn (May 62 PP1:7:3146)

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"Analysis of Triangular Bracket-Type Plates," by Charles G. Salmon (Dec 62 EM6:41:3363)
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"Dynamic Behavior of Supercritically Loaded Struts," by George W. Housner and Wai Keung Tso (Oct 62 EM5:41:3296)
"Dynamic Buckling of Shells under Impulsive Loading," by John S. Humphreys and Sol R. Bodner (Apr 62 EM2:17:3094)
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"Elliptical Ring Under Axisymmetric, Linear Loading," by S. Sarkadi Szabo (Aug 62 EM4:1:3220)
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"Experimental Study of Masonry Walls on Beams," by Saky Rosenhaupt (June 62 ST3:137:3163)
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"Folded Plate Analysis by Minimum Energy Principle," by M. N. Fialkow (June 62 ST3:1:3156)
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"Frames Combined with Shear Trusses Under Lateral Loads," by Hannskarl Bandel (Dec 62 ST6:227:3362)
"Free Vibrations of Fluid-Filled Cylindrical Shells," by Melvin L. Baron and Richard Skalak (June 62 EM3:17:3159)
"Generalized Displacements in Structural Analysis," by J. L. Meek (Apr 62 ST2:23:3089)
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"Moments and Free Vibrations in Curved Girder Bridges," by Hiroshi Yonezawa (Feb 62 EM1:1:3052)
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"Plastic Buckling Pressure for Spherical Shells," by M. E. Lunchick (Dec 62 EM6:13:3352)
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"Symposium on Teaching of Materials: New Type of Course on Engineering Materials," by Joseph Marin (Aug 62 EM4:83:3247)
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"Vibrations of Linearly Tapered Cantilever Beams," by G. W. Housner and W. O. Keightley (Apr 62 EM2:95:3101)
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"Civil Engineering Features of Steam Electric Plane Design," by E. A. Kammer and M. J. Hroncich (Sept 62 PO3: 13:3265)
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"Sea-Level Rise as a Cause of Erosion," by Per Bruun (Feb 62 WW1:117: 3065)

EROSION Continued
"Sediment in Small Reservoirs Due to Urbanization," by Harold P. Guy and George E. Ferguson (Mar 62 HY2:27:3070)
"Sediment Transportation Mechanics: Erosion of Sediment: Progress Report by the Task Committee on Preparation of Sedimentation Manual of the Committee on Sedimentation of the Hydraulics Division," Vito A. Vanoni, Chmn (July 62 HY4:109:3195)

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"Transient Operation of the Trickling Filter," by W. F. Ames, V. C. Behn, and W. Z. Collings (May 62 SA3:21:3121)

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"Studies of Severe Rainstorms in Illinois," by G. E. Stout and F. A. Huff (July 62 HY4:129:3196)
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"Hurricane Studies of New York Harbor," by Samuel Gofseyeff and Frank L. Panuzio (Feb 62 WW1:1:3046)

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"Bearing Capacity of Foundations," by Árpád Balla (Oct 62 SM5:13:3302)
"Cement Grouting: Progress Report of the Task Committee on Cement Grouting of the Committee on Grouting of the Soil Mechanics and Foundations Division," Judson P. Elston, Chmn (Apr 62 SM2:49:3098)
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"Metal Work Design of High Intensity Radiation Cells," by John M. Ruddy (Aug 62 ST4:23:3219)
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"Space Frame Analysis by Matrices and Computer," by Kurt Eisemann, Lin Woo, and Saul Namyet (Dec 62 ST6:245:3365)
"Stability of Space Frames by Computer Analysis," by John D. Renton (Aug 62 ST4:81:3237)

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"Friction and Cohesion of Saturated Clays," by T. H. Wu, A. G. Douglas, and R. D. Goughnour (June 62 SM3:1:3158)
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"Wave Force Coefficients for Offshore Pipelines," by Herbert Beckman and Murphy H. Thibodeaux (May 62 WW2:125:3141)

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"Displacements of Circular Rings with Normal Loads," by Roy Levy (Feb 62 ST1:23:3051)
"Distribution of Structural Response to Earthquakes," by Emilio Rosenblueth and Jorge I. Bustamante (June 62 EM3:75:3177)
"Dynamic Behavior of Cantilever Bridges," by R. K. Wen and T. Toridis (Aug 62 EM4:27:3229)
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"Stability Analysis of Multi-Level Guyed Towers," by Frederick H. Hull (Apr 62 ST2:61:3091)
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"Steel Design Criteria for Nuclear Applications: Progress Report of the Task Committee on Structural Materials in Reactor Design of the Committee on Nuclear Structures and Materials," Stanley H. Fistedis, Chmn (Feb 62 ST1: 171:3067)
"Strength of Prestressed Concrete Pavements," by Yutaka Usawa (Oct 62 ST5:143:3308)
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"Structural Steel for Buildings: Progress Report of the Administrative Committee of the Committee on Metals of the Structural Division," William H. Munse, Chmn (Aug 62 ST4:19:3215)
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"Suggested Specifications for Structures of Aluminum Alloy 6063-T5 and 6063-T6: Report of the Task Committee on Lightweight Alloys of the Committee on Metals of the Structural Division," John W. Clark, Chmn (Dec 62 ST6:47: 3342)
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"Critical Flow in Terms of Hydraulic Equivalents," by Francis S. Y. Lee (June 62 IR2:1:3155)
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Dsc (May 62 HY3:255:3144) of "General Solution for Open Channel Profiles" (Nov 61 HY6:89:2983)

BRANDT, G. DONALD
"Area Properties from Coordinates" (June 62 ST3:197:3167)
Dsc: Thomas J. Ogburn, III (Aug 62 ST4:261:3254)

BRATER, ERNEST F.
See Dah-Cheng Woo (Nov 62 HY6:31:3312)

BREDEHORST, R. E.
See A. E. Bruington (July 62 HY4:333:3209)

BRETSCHNEIDER, CHARLES L.
Dsc (Feb 62 WW1:153:3068) of "Deep Water Wave Generations by Moving Wind Systems" (May 61 WW2:133:2821)

BROCK, RICHARD
Dsc (Sept 62 HY5:337:3290) of "Back Scour Floods Above Pits and Basins" (Mar 62 HY2:139:3081)

BROOKS, R. H.
"Unsteady Flow of Ground Water into Drain Tile" (June 61 IR2:27:2836)
Dsc: Suresh P. Brahma (Dec 61 IR4: 85:3031)
Clo: June 62 IR2:95:3170
Dsc (Sept 62 IR3:41:3286) of "Tolerance of Plants to Salinity" (Dec 61 IR4: 1:3005)

BROTCHIE, JOHN F.
"Direct Design of Plate and Shell Structures" (Dec 62 ST6:127:3345)

BROWDER, E. M., JR.
"Water Supply for the Panama Canal," with Robert D. Brown, Jr. (Dec 62 PO4:69:3360)

BROWN, PHILIP P.
Dsc (Feb SM1:72:3061) of "Field Study of a Cellular Bulkhead" (Aug 61 SM4:89:2902)

BROWN, ROBERT D., JR.
See E. M. Browder, Jr. (Dec 62 PO4: 69:3360)
See William A. Carter (Feb 62 WW1: 29:3047)

BRUCE, JOHN F.
See Glenn H. Von Gunten (July 62 PO2:35:3191)

BRUINGTON, A. E.
Dsc (July 62 HY4:333:3209) with F. D. Sears, and R. E. Bredehorst of "Theoretical and Practical Aspects of Well Recharge" (Nov 61 HY6:155:2992)

BRUNNER, RUSSELL K.
See Alan D. K. Laird (Jan 62 HY1:1: 3035)

BRUUN, PER
"Sea-Level Rise as a Cause of Erosion" (Feb 62 WW1:117:3065)
Dsc (Feb 62 WW1:167:3068) of "Columbia River Ship Channel Improvement and Maintenance" (Aug 61 WW3: 71:2883)

BUCKINGHAM, R. A.
See M. A. Churchill (July 62 SA4:1: 3199)

BUFFINGTON, R. F.
Dsc (Nov 62 WW4:139:3335) of "Channel Stabilization on the Arkansas River" (May 62 WW2:51:3126)

BURAS, N.
Dsc (Dec 62 IR4:69:3377) of "Utilization of Water and Irrigation in Israel" (June 62 IR2:55:3178)

BURKHARDT, LAWRENCE R.
"Vibration Analysis for Structural Floor Systems" (Oct 61 ST7:97:2958)
Dsc: F. L. DiMaggio (June 62 ST3: 325:3179); L. T. Tallarico (June 62 ST3:325:3179); Joseph L. Zistler (June 62 ST3:328:3179); John F. Wiss (June 62 ST3:329:3179)
Clo: Oct 62 ST5:173:3309

BURNS, JOHN J., JR.
Dsc (Dec 62 EM6:149:3375) of "Dynamic Buckling of Shells Under Impulsive Loading" (Apr 62 EM2:17:3094)

BURSALI, T. SITKI
Dsc (Nov 62 HY6:217:3338) of "Critical Depth in Trapezoidal Channels" (May 62 HY3:69:3122)

BUSBY, C. E.
"Some Legal Aspects of Sedimentation" (July 61 HY4:151:2867)
Dsc: J. W. Johnson (Jan 62 HY1:149: 3044)
Clo: May 62 HY3:209:3144
Dsc (Sept 62 IR3:45:3286) of "Friant-San Joaquin River Litigation" (Dec 61 IR4:27:3007)

BUSCH, A. W.
"Activated Sludge Kinetics and Effluent Quality" (Nov 62 SA6:1:3322)

BUSER, WARREN M.
See Peter A. Hakman (June 62 SM3: 151:3176)

BUSH, JOHN L.
"Channel Stabilization on the Arkansas River" (May 62 WW2:51:3126)
Dsc: R. F. Buffington (Nov 62 WW4: 139:3335)

BUSTAMANTE, JORGE I.
Dsc (Aug 62 EM4:133:3244) of "Effect of Joint Rotation on Dynamics of Structures" (Dec 61 EM6:135:3028)
See Emilio Rosenblueth (June 62 EM3: 75:3177)

BUTLER, DONALD J.
Dsc (Oct 62 ST5:185:3309) of "Critical Buckling Loads for Tapered Columns" (Feb 62 ST1:1:3045)

BYERS, WILLIAM G.
"Stabilization of Canadian River at Canadian, Texas" (Aug 62 WW3:13:3214)

CADARIO, H. P.
Dsc (Dec 62 PO4:174:3374) of "TVA's Paradise Steam Plant" (May 62 PO1: 89:3137)

CAMPBELL, FRANK B.
"Vibration Problems in Hydraulic Structures" (Mar 61 HY2:61:2772)
Dsc: John Parmakian (Sept 61 HY5: 217:2920); David W. Appel and Charles L. Sanford (Nov 61 HY6:207:3000); H. L. Uppal (Nov 61 HY6:212:3000); Jan-Inge Kveisengen (Nov 61 HY6:221:3000); N. Rajaratnam (Nov 61 HY6:224:3000); Mikio Hino (Nov 61 HY6:231:3000)
Clo: Mar 62 HY2:155:3087

CAMPBELL, LOUIS, JR.
"Aggregates and Fly-Ash Concrete for Barley Lock" (Mar 61 CO1:1:2759)
Dsc: Thomas D. Larson (Jan 62 CO1: 69:3042)

CARLSON, E. J.
"Control of Alluvial Rivers by Steel Jetties," with R. A. Dodge, Jr. (Nov 62 WW4:53:3332)

CARLSON, EMERY D.
"Tank Foundations in Eastern Venezuela," with Stephen P. Fricano (Oct 61 SM5:69:2966)
Dsc: T. K. Chaplin (Apr 62 SM2:177: 3106); R. C. Harlan (June 62 SM3:233: 3171)

CARLTON, PAUL F.
Dsc (Dec 62 SM6:271:3378) with Ruth M. Behrmann of "Load-Carrying Capacity of Concrete Pavements" (June 62 SM3:89:3174)

CARR, A. P.
See C. Kidson (July 62 HY4:43:3189)

CARROLL, WILLIAM J., JR.
"1961 ASCE Salary Survey: Report of the Committee on Employment Conditions of the Department of Conditions of Practice, ASCE" (May 62 PP1:7:3146)

CARTER, WILLIAM A.
"Overhaul of Locks in the Panama Canal," with Robert D. Brown, Jr. (Feb 62 WW1:29:3047)

CARTER, WINFRED O.
See James M. Gere (Feb 62 ST1:1: 3045)

CHALKERS, DUMOND F.
See Byron J. Prugh (Sept 62 CO2:41: 3275)

CHAMBERS, CLOYDE C.
"Conservancy Districts as Flood Control Organizations" (Apr 60 HY4:1:2429)
Dsc: Henry J. Tebow (July 60 HY7: 55:2562); Samuel A. Greeley (Nov 60 HY9:153:2665)
Clo: Sept 62 HY5:271:3290

CHAMPION, S.
Dsc (Dec 62 SM6:245:3378) of "Cement Grouting: Progress Report of the Task Committee on Cement Grouting of the Committee on Grouting of the Soil Mechanics and Foundations Division" (Apr 62 SM2:49:3098)

CHANG, JERRY C. L.
Dsc (June 62 ST3:331:3179) of "Deflection Theory of Arches" (Oct 61 ST7: 125:2963)

CHAPLIN, T. K.
Dsc (Mar 62 HY2:192:3087) of "Study of Scour Around Spur-Dikes" (Nov 61 HY6:23:2978)
Dsc (Apr 62 SM2:181:3105) of "Analysis of Seepage Problems" (Oct 61 SM5: 91:2971)
Dsc (Apr 62 SM2:171:3105) of "Displacement of Long Footings by Dynamic Loads" (Oct 61 SM5:45:2965)
Dsc (Apr 62 SM2:177:3105) of "Tank Foundations in Eastern Venezuela" (Oct 61 SM5:69:2966)

CHAPMAN, WILLIAM H.
"Field Control for Antarctic Mapping" (Nov 62 SU1:29:3316)

CHELLIS, ROBERT D.
Dsc (Feb 62 SM1:78:3061) of "Pile Heave and Redriving" (Aug 61 SM4:125: 2905)

CHEN, CHIA-TSUN
Dsc (Aug 62 ST4:252:3254) of "Critical Buckling Load on Large Spherical Shells" (Feb 62 ST1:111:3055)

CHEN, H. S. C.
See S. S. McNeary (Nov 62 HY6:115: 3325)

CHEN, JONG PING
See William R. Knight (Sept 62 HW2: 37:3280)

CHEN, LOH-KWAN
"Analysis of Vierendeel Truss by Influence Moments" (Aug 62 ST4:33:3227)

CHENG, DAVID H.
Dsc (Dec 62 ST6:297:3376) of "Analysis of Structures by System Theory" (Apr 62 ST2:1:3088)

CHENG, SHIH-YUAN
"Stress Analysis of Rigid Frame Bridges with Inclined Legs" (Dec 60 ST12:1:2668)
Dsc: A. A. Eremin (June 62 ST3:283:3179); R. L. Sanks (June 62 ST3:284:3179)

CHOW, VEN TE
"Hydrologic Design of Culverts" (Mar 62 HY2:39:3071)
Dsc: Brian M. Reich (July 62 HY4:343:3209); D. F. Witherspoon (Sept 62 HY5:317:3290); J. Amorocho (Sept 62 HY5:320:3290); R. Robinson Rowe (Sept 62 HY5:322:3290); Gene E. Willeke (Sept 62 HY5:324:3290); W. H. Espey, Jr., and S. P. Sauer (Nov 62 HY6:191:3338)

CHRISTIANSEN, J. E.
Dsc (Dec 62 IR4:65:3377) of "Evaporation at High Elevations in California" (June 62 IR2:33:3172)

CHRISTOFFERSON, JOHN R.
Dsc (May 62 HY3:228:3144) of "Study of Scour Around Spur-Dikes" (Nov 61 HY6:23:2978)

CHU, KUANG-HAN
"Use of Orthotropic Plate Theory in Bridge Design," with G. Krishnamoorthy (June 62 ST3:35:3157)
Dsc: Roman Wolchuk (Dec 62 ST6:321:3376)

CHU, TSU-KAI
Dsc (Apr 62 EM2:159:3107) of "Variational Methods in Fluid Dynamics" (Dec 61 EM6:57:3018)

CHURCHILL, M. A.
"Prediction of Stream Reaeration Rates," with H. L. Elmore, and R. A. Buckingham (July 62 SA4:1:3199)

CICALA, PLACIDO
"Consistent Approximations in Shell Theory" (Aug 62 EM4:45:3241)

CLARK, BRUCE E.
"Symposium on Grouting: Grouting at Fort Campbell Theatre Building" (Apr 61 SM2:33:2792)
Clo: Aug 62 SM4:155:3250

CLARK, JOHN W.
"Suggested Specifications for Structures of Aluminum Alloys 6061-T6 and 6062-T6: Report of the Task Committee on Lightweight Alloys of the Committee on Metals of the Structural Division" (Dec 62 ST6:1:3341)
"Suggested Specifications for Structures of Aluminum Alloy 6063-T5 and 6063-T6: Report of the Task Committee on Lightweight Alloys of the Committee on Metals of the Structural Division" (Dec 62 ST6:47:3342)

CLEARY, EDWARD J.
"Billion-Dollar River Clean-Up" (Nov 62 SA6:97:3333)

COCHRAN, ALBERT L.
See Thorndike Saville, Jr. (May 62 WW2:93:3138)

COCHRANE, N. J.
Dsc (May 62 HY3:251:3144) of "Cyclical Variations in World-Wide Hydrologic Data" (Nov 61 HY6:71:2982)

COCKRELL, C. M.
Dsc (Feb 62 SM1:59:3061) of "Foundation Stability for a Submarine Liquid Sulphur Pipeline" (Aug 61 SM4:1:2878)

COE, JACK J.
Dsc (July 62 HY4:336:3209) of "Theoretical and Practical Aspects of Well Recharge" (Nov 61 HY6:155:2992)

COLBERT, LARRY A.
Dsc (June 62 ST3:343:3179) of "Critical Buckling Loads for Tapered Columns" (Feb 62 ST1:1:3045)

COLE, E. SHAW
Dsc (June HY6:118:2535) of "Early History of Hydrometry in the United States" (Jan HY1:1:2335)

COLLINGS, W. Z.
See W. F. Ames (May 62 SA3:21:3121)

COMBES, G.
Dsc (May 62 HY3:277:3144) of "Philosophy of Hydraulics" (Jan 62 HY1:45:3040)

COMPTON, AUGUST W.
"Reinforced Concrete Pavements for Airports" (May 60 AT1:1:2460)
Dsc: Gordon K. Ray and William G. Westall (Mar 61 AT1:35:2788)
Clo: Aug 62 AT1:37:3251

COREY, ARTHUR T.
Dsc (Dec 62 IR4:71:3377) of "Mechanics of Evapo-Transpiration" (June 62 IR2:67:3182)

CORRSIN, S.
Dsc (Dec 62 EM6:151:3375) of "Turbulent Diffusion and Anemometer Measurements" (Apr 62 EM2:37:3095)

COSTELLO, DAVID C.
See James M. Morgan, Jr. (May 62 SA3:139:3147)

COSULICH, W. F.
"Advances in Primary Treatment: Progress Report of the Subcommittee on Primary Treatment of the Committee on Sewerage and Sewage Treatment of the Sanitary Engineering Division" (Mar 62 SA2:105:3082)
Dsc: H. F. Seidel and E.R.Baumann (Sept 62 SA5:55:3288)

COTTINGHAM, WILLARD S.
See Richard N. White (Oct 62 EM5:67:3297)

COUGHLIN, D. W., JR.
Dsc (May 62 PO1:179:3149) of "Private Power Development of an Entire River" (July 61 PO2:69:2857)

CRAWFORD, CARL B.
Dsc (Apr 62 SM2:156:3105) of "Cohesion After Non-Hydrostatic Consolidation" (Aug 61 SM4:39:2881)

CRIDDLE, WAYNE D.
Dsc (Dec 62 IR4:61:3377) with Dallin Jensen of "Ground-Water Technology and Litigation Problems" (June 62 IR2:21:3166)

CRORY, FREDERICK E.
See Kenneth A. Linell (Aug 62 SM4:141:3250)

CRUM, R. G.
See A. M. DiGioia, Jr. (June 62 EM3:45:3165)

CUMMINGS, J. D.
See R. L. Wiegel (May 62 WW2:23:3115)

CUNGE, J. A.
See A. Preissmann (Jan 62 HY1:147:3044)

CUNNY, R. W.
Dsc (Aug 62 SM4:200:3250) with R. C. Sloan of "Static and Dynamic Behavior of Small Footings" (Dec 61 SM6:29:3020)

CURRAN, CHARLES D.
"Land and Water Resource Planning in Texas," with Forney W. Fleming (Nov 61 WW4:41:2989)
Dsc: William Whipple, Jr. (Nov 62 WW4:117:3335)
Clo: Nov 62 WW4:119,120:3335

CZERNIAK, E.
"Analytical Approach to Biaxial Eccentricity" (Aug 62 ST4:105:3239)
Dsc: T. Lazear (Dec 62 ST6:335:3376)

DABROWSKI, R.
Dsc (Apr 62 ST2:145:3108) of "Prestressed Bowstring Arch" (Oct 61 ST7:1:2953)

DAGSETH, ERIC L.
See Charles C. Zollman (Jan CO1:25:3037)

DANEL, P.
"Tetrapods and other Precast Blocks for Breakwaters," with E. Chapus and R. Dhaille (Sept 60 WW3:1:2590)
Dsc: Shoshichiro Nagai, A. S. Kahan (Feb 61 WW1:179,182:2750); T. P. Anantram; Shri M. G. Hiranandani, C. V. Gole, and Y. D. Pendse (May 61 WW2:151,151:2822)
Clo: Feb 62 WW1:133:3068

DAVENPORT, ALAN GARNETT
"Buffetting of a Suspension Bridge by Storm Winds" (June 62 ST3:233:3181)

DAVIS, HAROLD R.
"Computer Solution of Storm Surges" (Aug 62 WW3:117:3231)

DAVIS, SYDNEY
"Unification of Parshall Flume Data" (Dec 61 IR4:13:3006)
Dsc: W. L. Foss (Mar IR1:49:3085); Armando Balloffet (June 62 IR2:111:3170); A. R. Robinson and Henry Liu (June 62 IR2:112:3170); R. A. Dodge, Jr. (Sept 62 IR3:43:3286)
Dsc (Dec 62 IR4:58:3377) of "Critical Flow in Terms of Hydraulic Equivalents" (June 62 IR2:1:3155)

DAVISSON, M. T.
See R. B. Peck (Feb 62 WW1:141:3068)
See R. B. Peck (May 62 WW2:141:3153)

DAYARATNAM, PASALA
"Buckling of Shear Buildings" (Dec 62 ST6:149:3350)

DEAN, DONALD L.
"Static and Dynamic Analysis of Guy Cables" (Jan 61 ST1:1:2703)
Dsc: Glen V. Berg (Apr 61 ST4:61:2805); A. G. Davenport (June 61 ST5:99:2846); A. H. Brownfield, John H. Wells (Oct 61 ST7:283,286:2974)
Corr: June 61 ST5:109:2846
Clo: June 62 ST3:293:3179

DEARINGER, JOHN A.
"Auto Trips to the Central Business District" (Sept 62 HW2:13:3278)

DEB, ARUN KUMAR
Dsc (Jan 62 SA1:27:3043) of "Filtration Using Radioactive Algae" (May 61 SA3:23:2820)

DeFAZIO, FRANKLIN
Dsc (Nov 62 HY6:221:3338) of "Water-Hammer Analysis Including Fluid Friction" (May 62 HY3:79:3135)

de JONG, TIM
Dsc (Sept 62 SA5:47:3288) of "Natural and Forced Convection Solar Stills" (Jan 62 SA1:1:3036)

DELL, GEORGE H.
"Moments at Selected Points in Continuous Girders" (Dec 61 ST8:193:3025)
Dsc: S. E. Huey (Apr 62 ST2:159:3108); Max Kurtz (Apr 62 ST2:161:3108)
Clo: Oct 62 ST5:183:3309

DELLEUR, J. W.
"Variational Methods in Fluid Dynamics," with A. A. Sooky (Dec 61 EM6:57:3018)
Dsc: Tsu-kai Chu (Apr 62 EM2:159:3107); Daniel Dicker (June 62 EM3:165:3173)
Clo: Dec 62 EM6:145:3375
See P. F. Biery (Mar 62 HY2:45:3076)

DERBY, RAY L.
Dsc (May 62 PP1:37:3151) with William K. Weight of "Research and the Professional Society" (Oct 61 PP2:35:2952)

DESAYI, PRAKASH
"Influence Lines for Fixed Symmetrical Arches by Relaxation Method" (Feb 62 ST1:13:3049)
Dsc: K. R. Patel (Aug 62 ST4:239:3254); Max Kurtz (Aug 62 ST4:240:3254)

DESCHAPELLES, BERNARDO
"Beam Analogy for the Solution of Vierendeel Trusses" (Oct 62 ST5:25:3299)

DE WIEST, ROGER J. M.
"Free Surface Flow in Homogeneous Porous Medium" (July 61 HY4:181:2871)
Dsc: Daniel Dicker (Jan 62 HY1:155:3044)
Clo: May 62 HY3:213:3144
Dsc (Feb 62 SM1:83:3061) of "Analysis of Seepage Problems" (Oct 61 SM5:91:2971)

DICKER, DANIEL
Dsc (Jan 62 HY1:155:3044) of "Free Surface Flow in Homogeneous Porous Medium" (July 61 HY4:181:2871)
Dsc (June 62 EM3:165:3173) of "Variational Methods in Fluid Dynamics" (Dec 61 EM6:57:3018)

DICKINSON, PHILIP P.
"Humid Zone Irrigation in Ceylon" (Dec 60 IR4:101:2682)
Dsc: M. M. Ismail (Sept 61 IR3:83:2949)
Clo: June 62 IR2:87:3170

DICKSON, W. J.
"Ground Vehicle Mobility on Soft Terrain" (Aug 62 SM4:69:3225)

DIERCKS, FREDERICK O.
"Military Requirements for Topographic Maps" (Nov 62 SU1:7:3315)

DIETER, KARL HEINZ
"Distribution of Work Trips in Toronto" (Aug 62 CP1:9:3216)

DiGIOIA, A. M., JR.
"Yielding at Varying Load Rates," with R. G. Crum (June 62 EM3:45:3165)

DILL, F. H.
"Specifications for Structural Joints Using ASTM-A325 Bolts: Progress Report of the Task Committee on Riveted and Bolted Joints of the Committee on Metals of the Structural Division" (Oct 62 ST5:11:3294)

DiMAGGIO, FRANK L.
"Principle of Virtual Work in Structural Analysis" (Nov 60 ST11:65:2643)
Dsc: Morris Ojalvo, F. T. Mavis (Feb 61 ST2:61,64:2754); Roy W. Clough (Mar 61 ST3:59:2787); A. R. Oliver, Alexis Ostapenko (Apr 61 ST4:51,54:2805); Giuliano Augusti (June 61 ST5:83:2846)
Clo: Feb 62 ST1:189:3066
Dsc (June 62 ST3:325:3179) of "Vibration Analysis for Structural Floor Systems" (Oct 61 ST7:97:2958)

DISKIN, M. H.
"End Depth at a Drop in Trapezoidal Channels" (July 61 HY4:11:2851)
Dsc: N. Rajaratnam (Jan HY1:119:3044); Subir Kar (Jan HY1:131:3044); H. I. Hamid (Jan HY1:133:3044); J. A. Replogle (Mar 62 HY2:161:3087)
Clo: Sept 62 HY5:273:3290

DIWAN, A.
"Continuous Structures Loaded Normal to Their Plane" (Dec 62 ST6:97:3343)

DOBBINS, WILLIAM E.
Dsc (Nov 62 SA6:107:3336) of "Turbulent Diffusion and the Reaeration Coefficient" (Mar 62 SA2:53:3079)

DODGE, R. A., JR.
Dsc (Sept 62 IR3:43:3286) of "Unification of Parshall Flume Data" (Dec 61 IR4:13:3006)
See E. J. Carlson (Nov 62 WW4:53:3332)

DODSON, R. E.
Dsc (July 62 SA4:71:3206) of "Advances in Sludge Disposal in the Period from October 1, 1954, to February 1, 1960: Progress Report of the Subcommittee on Sludge Disposal of the Committee on Sewerage and Sewage Treatment of the Sanitary Engineering Division" (Mar 62 SA2:13:3075)

DONNAN, WILLIAM W.
"Plastic-Lined Mole Drains for Irrigated Areas," with V. S. Aronovici (Dec 62 IR4:39:3371)

DOUGLAS, A. G.
See T. H. Wu (June 62 SM3:1:3158)

DRAZIN, PHILIP G.
"Stability in a Continuously Stratified Fluid," with Louis N. Howard (Dec 61 EM6:101:3026)
Clo: Aug 62 EM4:131:3244

DRINKER, PHILIP A.
See Arthur T. Ippen (Sept 62 HY5:143:3273)

DRISCOLL, GEORGE C., JR.
See Yuzuru Fujita (Apr 62 ST2:43:3090)

DROUGHT, A. BERNARD
Dsc (May 62 PP1:43:3151) of "Atomic Power, A Failure in Engineering Responsibility" (Oct 61 PP2:43:2975)

DRUML, FRANK U.
Dsc (Sept 62 HY5:299:3290) of "Unit Hydrograph Characteristics for Sewered Areas" (Mar 62 HY2:1:3069)

DUNDURS, J.
"Force in Smoothly Joined Elastic Half-Planes" (Oct 62 EM5:25:3295)

DUNHAM, JAMES W.
"Design Considerations for California Marinas" (Nov 60 WW4:69:2658)
Dsc: J. W. V. Blackman (May 61 WW2:179:2822); Omar J. Lillevang (Aug 61 WW3:135:2914)
Clo: Feb 62 WW1:137:3068

DUNSTAN, GILBERT H.
Dsc (Jan 62 SA1:41:3043) of "Sanitary Engineering Education in a Changing World" (July 61 SA4:47:2962)

EAGLESON, PETER S.
"Laminar Damping of Oscillatory Waves" (May 62 HY3:155:3152)
"Unit Hydrograph Characteristics for Sewered Areas" (Mar 62 HY2:1:3069)
Dsc: Gene E. Willeke (July 62 HY4:341:3209); Frank U. Druml (Sept 62 HY5:299:3290); M. B. McPherson and M. Joseph Willis (Sept 62 HY5:303:3290); W. H. Espey, Jr. (Nov 62 HY6:181:3338); Neal E. Minshall and D. A. Woolhiser (Nov 62 HY6:184:3338); Donald VanSickle (Nov 62 HY6:186:3338)

ECKENFELDER, WESLEY, JR.
"Trickling Filtration Design and Performance" (July 61 SA4:33:2860)
Dsc: V. C. Behn, W. F. Ames, and K. Keshavan (Jan 62 SA1:31:3043); W. E. Howland (Jan 62 SA1:38:3043); H. A. Hawkes (Jan 62 SA1:39:3043); J. Gánczarczyk (Mar 62 SA2:117:3086)

EICHER, G. J.
Dsc (May 62 PO1:183:3149) of "Fish Handling Facilities for Baker River Project" (Nov 61 PO3:23:2993)

EINSTEIN, H. A.
Dsc (Nov 62 HY6:208:3338) of "Hydraulic Roughness of Corrugated Pipes" (May 62 HY3:23:3111)

EISEMANN, KURT
"Space Frame Analysis by Matrices and Computer," with Lin Woo and Saul Namyet (Dec 62 ST6:245:3365)

ELLIOT, REED A.
"TVA's Paradise Steam Plant," with Walter F. Emmons and Henry T. Lofft (May 62 PO1:89:3137)
Dsc: Harold J. Petersen (Dec 62 PO4: 171:3374); C. W. Priest (Dec 62 PO4: 172:3374); H. P. Cadario (Dec 62 PO4: 174:3374); Adolf A. Meyer (Dec 62 PO4: 176:3374); Stanley Moyer (Dec 62 PO4: 177:3374); R. A. Baker (Dec 62 PO4: 180:3374); Theodore Baumeister (Dec 62 PO4:180:3374)

ELMORE, H. L.
See M. A. Churchill (July 62 SA4:1: 3199)

ELSTON, JUDSON P.
"Cement Grouting: Progress Report of the Task Committee on Cement Grouting of the Committee on Grouting of the Soil Mechanics and Foundations Division" (Apr 62 SM2:49:3098)
Dsc: Judson P. Elston (Oct 62 SA5: 45:3306); S. Champion (Dec 62 SM6: 245:3378); Thomas F. Thompson (Dec 62 SM6:245:3378)
Dsc (Oct 62 SM5:45:3306) of "Cement Grouting: Progress Report of the Task Committee on Cement Grouting of the Committee on Grouting of the Soil Mechanics and Foundations Division" (Apr 62 SM2:49:3098)

EMMONS, WALTER F.
"Civil Engineering Design of TVA Steam Stations," with Warren C. Boop (Sept 62 PO3:73:3270)
See Reed A. Elliot (May 62 PO1:89: 3137)

ENGEL, F. V. A.
Dsc (Sept 62 HY5:293:3290) of "Philosophy of Hydraulics" (Jan 62 HY1:45: 3040)

ERDMENGER, JORGE ERNESTO
"Behavior of Volcanic Soils in Highway Construction" (Sept 62 CO2:1:3256)

EREMIN, A. A.
Dsc (June 62 ST3:277:3179) of "Load Distribution in Composite G'rder-Slab Systems" (Nov 60 ST11:79:2645)
Dsc (June 62 ST3:283:3179) of "Stress Analysis of Rigid Frame Bridges with Inclined Legs" (Dec 60 ST12:1:2668)
Dsc (Aug 62 AT1:41:3251) of "Runway Roughness Studies in the Aeronautical Field" (Mar 61 AT1:11:2774)
Dsc (Oct 62 ST5:189:3309) of "Seismic Forces on Engineering Structures" (Apr 62 ST2:81:3100)
Dsc (Dec 62 EM6:155:3375) of "Distribution of Structural Response to Earthquakes" (June 62 EM3:75:3177)

ERIKSSON, S. C. B.
See R. G. Robertson (June 62 ST3:339: 3179)

ESCANDE, LÉOPOLD
Dsc (Mar 62 HY2:177:3087) of "Pressures on Spillway Flip Buckets" (Sept 61 HY5:87:2930)

ESCARIO, VENTURA
Dsc (Apr 62 SM2:167:3105) of "Slope Stability Analysis by a New Graphical Method" (Oct 61 SM5:1:2954)

ESCOFFIER, FRANCIS F.
"Stability Aspects of Flow in Open Channels," with Marden B. Boyd (Nov 62 HY6:145:3331)

ESKINAZI, S.
"Mixing of a Turbulent Wall-Jet into a Free-Stream," with V. Kruka (Apr 62 EM2:125:3106)

ESPEY, W. H., JR.
Dsc (Nov 62 HY6:191:3338) with S. P. Sauer of "Hydrologic Design of Culverts" (Mar 62 HY2:39:3071)
Dsc (Nov 62 HY6:181:3338) of "Unit Hydrograph Characteristics for Sewered Areas" (Mar 62 HY2:1:3069)

ESTUAR, F. R.
See L. Tall (Oct 62 EM5:171:3307)

FADER, IRVING
"Grid Analysis by the Reaction Distribution Method," (Aug 61 ST6:77:2879)
Dsc: Mounir Badir (Apr 62 ST2:141: 3108)
Clo: Aug 62 ST4:213:3254

FAIRBANKS, HARDY E.
"Elastomeric Pads as Bearings for Steel Beams" (Dec 61 ST8:73:3021)
Dsc: William Zuk (Feb 62 ST1:211:3066); A. M. Ozell (June 62 ST3:335:3179)

FALK, LLOYD L.
"Analog Computer—A Modern Tool in Water Pollution Control" (Nov 62 SA6:31:3324)

FARNEY, HAROLD S.
"Side-Channel Spillway Design," with Adolfs Markus (May 62 HY3:131:3143)
Dsc: Praxitelis A. Argyropoulos (Nov 62 HY6:225:3338); Edward J. Groscurth (Nov 62 HY6:226:3338); Dagan (Drimmer) Gedeon (Nov 62 HY6:227:3338)

FARRELL, D. A.
Dsc (Mar 62 HY2:183:3087) of "Terminal Shape of a Shallow Liquid Front" (Sept 61 HY5:117:2934)

FELD, JACOB
Dsc (Apr 62 SM2:169:3105) of "Simplified Design of Combined Footings" (Oct 61 SM5:19:2959)
Dsc (May 62 PP1:41:3151) of "Atomic Power, A Failure in Engineering Responsibility" (Oct 61 PP2:43:2975)

FELLOWS, FRED G.
Dsc (July 62 HY4:308:3209) of "Cyclical Variations in World-Wide Hydrologic Data" (Nov 61 HY6:71:2982)

FERGUSON, GEORGE E.
See Harold P. Guy (Mar 62 HY2:27:3070)

FERGUSON, PHIL M.
"Recent Trends in Ultimate Strength Design" (Jan 61 ST1:57:2715)
Dsc: Jack R. Benjamin (Apr 61 ST4:71:2805); C. Berwanger (June 61 ST5:105:2846); John G. Merkle, M. Gregory, A. A. Eremin (Oct 61 ST7:305,308,310:2974)
Corr: June 61 ST5:109:2846
Clo: June 62 ST3:301:3179

FERRARA, A.
Dsc (Aug 62 ST4:223:3254) with T. V. Galambos of "Post-Elastic Behavior of Wide-Flange Steel Beams" (Dec 61 ST8:43:3016)

FETZER, CLAUDE A.
Dsc (Feb 62 SM1:80:3061) of "Pile Heave and Redriving" (Aug 61 SM4:125:2905)

FIALA, GENE R.
"Manifold Stilling Basin," with Maurice L. Albertson (July 61 HY4:55:2863)
Dsc: J. C. Stevenson (Mar 62 HY2:167:3087); W. G. Wilkinson (Mar 62 HY2:170:3087)
Clo: Nov 62 HY6:169:3338

FIALKOW, M. N.
"Folded Plate Analysis by Minimum Energy Principle" (June 62 ST3:1:3156)

FIERING, MYRON B.
"Queuing Theory and Simulation in Reservoir Design" (Nov 61 HY6:39:2981)
Clo: Sept 62 HY5:281:3290

FILHO, FERNANDO VENANCIO
Dsc (Apr 62 EM2:161:3107) of "Effect of Joint Rotation on Dynamics of Structures" (Dec 61 EM6:135:3028)
Dsc (Dec 62 ST6:303:3376) of "Generalized Displacements in Structural Analysis" (Apr 62 ST2:23:3089)

FINGER, JOSEPH H.
See Virgil Blancato (Nov 62 WW4:1:3311)

FINK, HOWARD L.
"Survey Control at Glen Canyon Dam" (Nov 62 SU1:51:3334)

FINN, W. D. LIAM
Dsc (Aug 62 SM4:198:3250) of "Static and Dynamic Behavior of Small Footings" (Dec 61 SM6:29:3020)
Dsc (Dec 62 SM6:268:3378) of "Prediction of Swelling Potential for Compacted Clays" (June 62 SM3:53:3169)

FINN, WILLIAM D.
Dsc (Feb 62 SM1:65:3061) with N. D. Nathan of "Secondary Compression of Clays" (Aug 61 SM4:61:2885)

FISCHERSTRÖM, N. C. H.
Dsc (Sept 62 SA5:43:3288) of "Upflow Solids Contact Basin" (Nov 61 SA6:73:3001)

FISTEDIS, STANLEY H.
"Concrete for Shielding Nuclear Radiations: Progress Report of the Task Committee on Structural Materials in Reactor Design of the Committee on Nuclear Structures and Materials" (Feb 62 ST1:123:3062)
"Steel Design Criteria for Nuclear Applications: Progress Report of the Task Committee on Structural Materials in Reactor Design of the Committee on Nuclear Structures and Materials" (Feb 62 ST1:171:3067)

FLEMING, JOHN F.
"Dynamic Response of Highway Bridges," with James P. Romualdi (Oct 61 ST7:31:2955)
Dsc: Robert S. Ayre (June 62 ST3: 323:3179); Tseng Huang (Oct 62 ST5: 169:3309)

FLY, CLAUDE L.
"Soil Drainability Factor in Land Classification" (Sept 61 IR3:47:2946)
Dsc: Robert L. McFall and Ben A. Jones, Jr. (Mar 62 IR1:41:3085)
Clo: Dec 62 IR4:51:3377)

FOGEL, CHARLES M.
"Elastic Strength of Tapered Columns," with Robert L. Ketter (Oct 62 ST5:67:3301)

FOLLIN, JAMES W.
"The Engineer's Role in Planning Urban Renewal" (Aug 62 CP1:29:3217)

FONDAHL, JOHN W.
"Photographic Analysis for Construction Operations" (May 60 CO2:9:2483)
Dsc: Robert F. Borg (Nov 60 CO3: 77:2664)
Clo: Jan 62 CO1:63:3042

FORSTER, JOHN W.
"Design Studies for Chute-Des-Passes Surge-Tank System" (May 62 PO1:21: 3142)
Dsc: Adolph A. Sutko (Dec 62 PO4: 183:3374); I. W. McGaig (Dec 62 PO4: 184:3374); Henry M. Paynter (Dec 62 PO4:185:3374)

FOSS, W. L.
Dsc (Mar 62 IR1:49:3085) of "Unification of Parshall Flume Data" (Dec 61 IR4:13:3006)

FRANCIS, C. J.
"Soil Conservation Measures in River Basin Planning," with R. G. Andrews (Nov 62 WW4:39:3320)

FRANKLAND, J. M.
"Symposium on Teaching of Materials: Aspects of Material Behavior Significant to Engineers" (Aug 62 EM4:75: 3246)

FREUDENTHAL, A. M.
"Safety, Reliability, and Structural Design" (Mar 61 ST3:1:2764)
Dsc: Jack R. Benjamin and Theodore C. Zsutty (Aug 61 ST6:199:2915)
Clo: June 62 ST3:303:3179

FRY, ALBERT S.
Dsc (May 62 PP1:44:3151) of "Atomic Power, A Failure in Engineering Responsibility" Oct 61 PP2:43:2975)

FUJII, CLARENCE S.
See Robert Q. Palmer (Nov 62 WW4: 135:3335)

FUJITA, YUZURU
"Strength of Round Columns," with George C. Driscoll, Jr. (Apr 62 ST2: 43:3090)

FULTON, J. F.
See I. W. McCaig (Nov 62 HY6:209: 3338)

GALAMBOS, THEODORE V.
"Column Tests on 7-1/2-in. Round, Solid Bars," with Yukio Ueda (Aug 62 ST4:1:3212)
See A. Ferrara (Aug 62 ST4:223:3254)
See George C. Lee (Feb 62 EM1:59: 3059)

GALLUP, ROBERT B.
Dsc (July 62 HY4:307:3209) of "Cyclical Variations in World-Wide Hydrologic Data" (Nov 61 HY6:71:2982)

GANCZARCZYK, J.
Dsc (Mar 62 SA2:117:3086) of "Trickling Filtration Design and Performance" (July 61 SA4:33:2860)

GARDE, R. J.
"Study of Scour Around Spur-Dikes," with K. Subramanya and K. D. Nambudripad (Nov 61 HY6:23:2978)
Dsc: C. R. Neill (Mar 62 HY2:191: 3087); T. K. Chaplin (Mar 62 HY2:192: 3087); Emmett M. Laursen (May 62 HY3:225:3144); John R. Christofferson (May 62 HY3:228:3144); G. Tison, Jr. (July 62 HY4:301:3209)

GARG, SATYA PRAKASH
Dsc (July 62 HY4:293:3209) of "Calculation of Potential Flows with Free Streamlines" (Nov 61 HY6:17:2977)

GATES, MARVIN
Dsc (Sept 62 CO2:93:3287) of "Construction Economy Through Contract Administration: Progress Report of the Special Committee of the Construction Division of the San Francisco Section" (Jan 62 CO1:1:3033)

GAYLORD, EDWIN H., JR.
Dsc (Apr 62 ST2:151:3108) of "Strength of Plate Girders in Shear" (Oct 61 ST7:151:2967)

GEDEON, DAGAN (DRIMMER)
Dsc (Nov 62 HY6:227:3338) of "Side-Channel Spillway Design" (May 62 HY3:131:3143)

GELCI, ROBERT
Dsc (Feb 62 WW1:157:3068) of "Deep Water Wave Generations by Moving Wind Systems" (May 61 WW1:133:2821)

GERE, JAMES M.
"Critical Buckling Loads for Tapered Columns," with Winfred O. Carter (Feb 62 ST1:1:3045)
Dsc: Larry A. Colbert (June 62 ST3:343:3179); N. C. Lind (Aug 62 ST4:235:3254); Donald J. Butler (Oct 62 ST5:185:3309)

GERSTNER, R. W.
"Stress Analysis of a Plane Rocker," with O. C. Zienkiewicz (Aug 62 EM4:15:3226)

GESSEL, CLYDE D.
"Large-Scale Mapping of Lake Powell," with Dwight H. Rutledge (Nov 62 SU1:17:3318)

GETTY, HUGH C.
"Synthetic Peak Discharges for Design Criteria," with James H. McHughs (Sept 62 HY5:1:3255)

GEYER, JOHN C.
See James M. Morgan, Jr. (May 62 SA3:139:3147)
See Warren Viessman, Jr. (Sept 62 HY5:245:3285)

GIBBS, H. J.
See W. G. Holtz (Aug 62 SM4:207:3250)

GILLIS, PETER P.
"Analysis of Structures by Combining Redundants," with Kurt H. Gerstle (Jan 61 ST1:41:2712)
Dsc: Steven J. Fenves (Apr 61 ST4:67:2805); Harold G. Lorsch (June 61 ST5:103:2846); B. J. Hartz, Phillip L. Gould (Oct 61 ST7:293,295:2974)
Clo: June 62 ST3:297:3179

GIRAULT, PABLO
Dsc (Feb 62 SM1:63:3061) of "Secondary Compression of Clays" (Aug 61 SM4:61:2885)

GISIGER, PAUL E.
Dsc (July 62 PO2:263:3208) of "Symposium on Pumped Storage: General Planning of Pumped Storage" (July 62 PO2:211:3204)

GJELSVIK, A.
"Nonsymmetrical Snap Buckling of Spherical Caps," with S. R. Bodner (Oct 62 EM5:135:3305)
"The Energy Criterion and Snap Buckling of Arches," with S. R. Bodner (Oct 62 EM5:87:3304)

GLYNN, T. E.
See R. A. Spence (Aug 62 SM4:85:3228)

GNAEDINGER, JOHN P.
"Symposium on Grouting: Grouting to Prevent Vibration of Machinery" (Apr 61 SM2:43:2793)
Dsc: I. Alpan and Judson P. Elston (Aug 61 SM4:199:2917)
Clo: Aug 62 SM4:157:3250

GOFSEYEFF, SAMUEL
"Hurricane Studies of New York Harbor," with Frank L. Panuzio (Feb 62 WW1:1:3046)
Dsc: D. M. Thomas (Aug 62 WW3:187:3252); Basil W. Wilson (Nov 62 WW4:127:3335)

GOLDBERG, JOHN E.
See Z. L. Moh (June 62 EM3:173:3173)

GOLDMAN, MORTON I.
Dsc (May 62 PP1:46:3151) with C. Rogers McCullough of "Atomic Power, A Failure in Engineering Responsibility" (Oct 61 PP2:43:2975)

GOLE, C. V.
See M. G. Hiranandani (Aug 62 WW3:139:3249)

GOMEZ-PEREZ, FRANCISCO
Dsc (Aug 62 ST4:257:3254) of "Survey of European Concrete Crossties" (Apr 62 ST2:111:3104)

GOODRICH, R. D.
"Tolkmitt's Backwater and Dropdown Curve Tables" (May 60 HY5:1:2469)
Dsc: Ven Te Chow (Aug 60 HY8:73:2587); Praxitelis A. Argyropoulos (Nov 60 HY9:173:2665); Chesley M. Posey, Monir M. Kansoh, Serge Leliavsky (Jan 61 HY1:169,172,180:2724)
Clo: Jan 62 HY1:77:3044)

GOTOLSKI, W. H.
Dsc (Oct 62 SM5:67:3306) of "Compacting a Dam Foundation by Blasting" (June 62 SM3:33:3160)

GOUGHNOUR, R. D.
See T. H. Wu (June 62 SM3:1:3158)

GOULD, PHILLIP L.
Dsc (Aug 62 ST4:243:3254) of "Design of Frames with Deformation the Prime Criterion" (Feb 62 ST1:55:3053)

GOVINDA RAO, N. S.
"Spectrum of Axisymmetric Turbulence," with N. V. Chandrasekhara Swamy (Apr 62 EM2:71:3096)

GRAY, DON M.
"Synthetic Unit Hydrographs for Small Watersheds" (July 61 HY4:33:2854)
Dsc: R. B. Hickok (Jan 62 HY1:137:3044)

GREELEY, SAMUEL A.
Dsc (July 62 SA4:69:3206) with Paul E. Langdon of "Reclaiming Hyperion Effluent" (Nov 61 SA6:1:2985)

GREEN, JAMES L.
"Pneumatic Breakwaters to Protect Dredges" (May 61 WW2:67:2815)
Dsc: J. B. Schijf (Nov 61 WW4:127:3004); Michinori Kurihara (Aug 62 WW3:171:3252)

GRICE, R. H.
Dsc (Aug 62 SM4:192:3250) of "Influence of Geological Conditions on Uplift" (Dec 61 SM6:1:3008)

GRIMES, PARKER R.
"Electronic Computer Use in Sloping Power Projects," with Glenn H. Von Gunten (Jan 61 PO1:1:2709)
Dsc: George Bugliarello (July 61 PO2:121:2868)
Clo: May 62 PO1:171:3149

GROSCURTH, EDWARD J.
Dsc (Nov 62 HY6:226:3338) of "Side-Channel Spillway Design" (May 62 HY3:131:3143)

GROVER, HORACE J.
"Physical Metallurgy and Mechanical Properties of Materials: Fatigue of Structural Materials" (Dec 60 EM6:53:2688)
Dsc: S. K. Ghaswala (June 61 EM3:71:2842)
Clo: June 62 EM3:155:3173

GRUNE, WERNER N.
"Natural and Forced Convection Solar Stills," with Ross B. Hughes, and T. Lewis Thompson (Jan 62 SA1:1:3036)
Dsc: Tim de Jong (Sept 62 SA5:47:3288)

GURALNICK, SIDNEY A.
See Charles A. Miller (Aug 62 ST4:41:3233)

GUY, HAROLD P.
"Sediment in Small Reservoirs Due to Urbanization," with George E. Ferguson (Mar 62 HY2:27:3070)

HAAIJER, GEERHARD
"Economy of High Strength Steel Structural Members" (Dec 61 ST8:1:3010)
Dsc: K. E. McKee (Apr 62 ST2:155:3108); J. R. Arena (Apr 62 ST2:155:3108); P. B. R. Johnson (Apr 62 ST2:155:3108); A. A. Toprac (Aug 62 ST4:221:3254)

HACKNEY, JOHN W.
"Construction Cost Estimating and Control: Progress Report of the Committee on Estimating and Cost Control of the Construction Division" (Sept 62 CO2:83:3291)

HAISE, HOWARD R.
See Marvin E. Jensen (June 62 IR2:119:3170)

HAKMAN, PETER A.
"Bulkhead Test Program at Port of Toledo, Ohio," with Warren M. Buser (June 62 SM3:151:3176)
Dsc: A. L. Bentley, Jr. (Dec 62 SM6:287:3378); P. W. Rowe (Dec 62 SM6:288:3378)

HALEY, JAMES F.
See Kenneth A. Linell (Aug 62 SM4:141:3250)

HALL, CHARLES E.
"Compacting a Dam Foundation by Blasting" (June 62 SM3:33:3160)
Dsc: W. H. Gotolski (Oct 62 SM5:67:3306); E. Zolkov (Oct 62 SM5:69:3306); Dinesh Mohan (Dec 62 SM6:259:3378); W. J. Turnbull (Dec 62 SM6:260:3378)

HALL, WARREN A.
"Aqueduct Capacity Under an Optimum Benefit Policy" (Sept 61 IR3:1:2923)
Dsc: S. Ramaseshan (June 62 IR2:97:3170)
Clo: Dec 62 IR4:45:3377

HALLER, JOHN
"Computing Traverses by Machine Methods," with T. G. Smith (May 62 HW1:1:3110)

HAMID, H. I.
Dsc (Jan 62 HY1:133:3044) of "End Depth at a Drop in Trapezoidal Channels" (July 61 HY4:11:2851)

HAMMAD, H. Y.
"Depth and Spacing of Tile Drain Systems" (Mar 62 IR1:15:3084)
Dsc: E. J. List (Sept 62 IR3:59:3286)

HAMON, W. RUSSELL
"Estimating Potential Evapotranspiration" (May 61 HY3:107:2817)
Dsc: Harry F. Blaney (Jan 62 HY1:93:3044)
Clo: July 62 HY4:245:3209

HANSEN, VAUGHN E.
See David W. Hendricks (June 62 IR2:67:3182)

HANTUSH, MAHDI S.
"Aquifer Tests on Partially Penetrating Wells" (Sept 61 HY5:171:2943)
Clo: Nov 62 HY6:173:3338
"Drainage Wells in Leaky Water-Table Aquifers" (Mar 62 HY2:123:3078)
"Flow of Ground Water to Collector Wells," with Istavros S. Papadopulos (Sept 62 HY5:221:3284)
"Hydraulics of Gravity Wells in Sloping Sands" (July 62 HY4:1:3185)

HARBECK, G. EARL, JR.
Dsc (June 62 IR2:122:3170) of "Evaporation from Pyramid and Winnemucca Lakes, Nevada" (Mar 62 IR1:1:3083)

HARDER, J. A.
"Analog Models for Flood Control Systems" (Mar 62 HY2:63:3074)

HARDING, S. T.
"Evaporation from Pyramid and Winnemucca Lakes, Nevada" (Mar 62 IR1:1:3083)
Dsc: Marvin E. Jensen and Howard R. Haise (June 62 IR2:119:3170); G. Earl Harbeck, Jr. (June 62 IR2:122:3170); Harry F. Blaney (Sept 62 IR3:49:3286); C. R. Pettis (Sept 62 IR3:51:3286); Nicholas L. Rosner (Dec 62 IR4:53:3377)

HARLAN, R. C.
Dsc (June 62 SM3:233:3171) of "Tank Foundations in Eastern Venezuela" (Oct 61 SM5:69:2966)

HARLEMAN, DONALD R. F.
Dsc (Nov 62 SA6:109:3336) with E. R. Holley, Jr., of "Turbulent Diffusion and the Rearation Coefficient" (Mar 62 SA2:53:3079)
Dsc (Nov 62 HY6:199:3338) with R. R. Rumer, Jr., and J. A. Hoopes of "Dispersion in Unsteady Porous-Media Flow" (May 62 HY3:1:3109)

HARR, MILTON E.
"Analysis of Seepage Problems," with Robert C. Deen (Oct 61 SM5:91:2971)
Dsc: Roger J. M. DeWiest (Feb 62 SM1:83:3061); L. R. Szalatkay (Apr 62 SM2:181:3105); Serge Leliavsky (Apr 62 SM2:181:3105); T. K. Chaplin (Apr 62 SM2:182:3105)
Clo: June 62 SM3:237:3171

HARRIS, HARLAN F.
Dsc (Dec 62 PO4:165:3374) of "Noise Reduction Theory Applied to a Large Power Plant" (May 62 PO1:19:3123)

HARRIS, JOHN R.
"Analysis of Multi-Span Gable Frames" (June 62 ST3:167:3164)
Dsc: C. K. Wang (Oct 62 ST5:195:3309)

HARRISON, H. B.
Dsc (June 62 EM3:169:3173) of "Buckling Behavior Above the Tangent Modulus Load" (Dec 61 EM6:79:3013)

HART, WILLIAM E.
"Jet Discharge into a Fluid with a Density Gradient" (Nov 61 HY6:171:2996)
Dsc: G. Abraham (Mar 62 HY2:195:3087)

HARTLAND, D.
See M. Braikevitch (Dec 62 PO4:83: 3368)

HARTZ, B. J.
Dsc (Dec 62 ST6:316:3376) of "Generalized Displacements in Structural Analysis" (Apr 62 ST2:23:3089)

HARZA, RICHARD D.
"Design of Karadj Hydroelectric Project," with Robert F. Edbrooke (Aug 60 PO4:31:2579)
Dsc: Robert Alexander (Nov 61 PO3: 103:2999)
Clo: Dec 62 PO4:145:3374
"Symposium on Pumped Storage: Foreign Pumped Storage Projects" (Dec 62 PO4:107:3369)

HASLAM, EMERSON F., JR.
See Philip A. Wild (July 62 PO2:69: 3193)

HASSAN, EL SAYED MOHAMED
"Power from the Sea" (July 61 PO2: 21:2850)
Dsc: George A. Whetstone (Nov 61 PO3:115:2999)
Clo: May 62 PO1:175:3149

HAUGHTON, KENNETH E.
See Alan D. K. Laird (Jan 62 HY1:1: 3035)

HAUSHILD, W. L.
See D. B. Simons (Sept 62 HY5:57: 3263)
See D. W.Hubbell (July 62 HY4:287: 3209)

HAWKES, H. A.
Dsc (Jan 62 SA1:39:3043) of "Trickling Filtration Design and Performance" (July 61 SA4:33:2860)

HAYTHORNTHWAITE, R. M.
"Range of Yield Conditions in Ideal Plasticity" (Dec 61 EM6:117:3027)
Clo: Oct 62 EM5:177:3307

HEALY, KENT A.
See Robert V. Whitman (Apr 62 SM2: 99:3102)

HEDGER, HAROLD E.
"Basic Considerations in Water Resources Planning: Progress Report of the Committee on Water Resources Planning of the Hydraulics Division" (Sept 62 HY5:23:3261)

HEIERLI, WERNER
"Inelastic Wave Propagation in Soil Columns" (Dec 62 SM6:33:3347)

HEINEMANN, HERMAN G.
"Volume-Weight of Reservoir Sediment" (Sept 62 HY5:181:3274)

HENDERSON, FRANCIS M.
"Stability of Alluvial Channels" (Nov 61 HY6:109:2984)
Dsc: T. Blench (May 62 HY3:259: 3144); Gerald Lacey (May 62 HY3:267: 3144); D. B. Simons (July 62 HY4:317: 3209); T. M. Prus-Chacinski (July 62 HY4:323:3209); Claude C. Inglis (July 62 HY4:328:3209)
Dsc (Mar 62 HY2:175:3087) of "Pressures on Spillway Flip Buckets" (Sept 61 HY5:87:2930)

HENDERSON, JOHN M.
"Agricultural Land Drainage and Stream Pollution" (Nov 62 SA6:61:3329)

HENDRICKS, DAVID W.
"Mechanics of Evapo-Transpiration," with Vaughn E. Hansen (June 62 IR2: 67:3182)
Dsc: Arthur T. Corey (Dec 62 IR4:71: 3377)

HENDRICKSON, DAVID
Dsc (Feb 62 WW1:163:3068) of "Steel Pile Marine Corrosion and Cathodic Protection" (Aug 61 WW3:59:2877)

HENDRY, A. W.
Dsc (Dec 62 ST6:325:3376) with S. Saad of "Experimental Study of Masonry Walls on Beams" (June 62 ST3:137:3163)

HERMAN, GEORGE J.
See Allen G. Thurman (Dec 62 ST6: 161:3353)

HERMANN, E. R.
"Stabilization Pond as a Nitrate Reducing Reactor" (Sept 62 SA5:1:3260)

HERSHFIELD, DAVID M.
"Estimating the Probable Maximum Precipitation" (Sept 61 HY5:99:2933)
Dsc: Walter T. Wilson (Mar 62 HY2: 179:3087); J. Kerr (Mar 62 HY2:181: 3087)
Clo: July 62 HY4:283:3209
"Extreme Rainfall Relationships" (Nov 62 HY6:73:3319)

HIATT, W.
Dsc (Dec 62 PO4:203:3374) with R. E. MacDonald of "John Day Lock and Dam: Planning and Site Selection" (July 62 PO2:35:3191)

HICKOK, R. B.
Dsc (Jan 62 HY1:137:3044) of "Synthetic Unit Hydrograph for Small Watersheds" (July 61 HY4:33:2854)

HICKSON, ROBERT E.
"Columbia River Ship Channel Improvement and Maintenance" (Aug 61 WW3:71:2883)
Dsc: Ray E. Holmes (Feb 62 WW1: 165:3068); Charles E. Behlke and Harold D. Pritchett (Feb 62 WW1:166:3068); Per Bruun (Feb 62 WW1:167:3068)
Clo: May 62 WW2:167:3153
Add: Nov 62 WW4:111:3335

HILL, HIBBERT
Dsc (Dec 62 PO4:190:3374) of "Evaluation of Federal Hydroelectric Power Projects" (May 62 PO1:153:3148)

HILL, RAYMOND A.
"Leaching Requirements in Irrigation" (Mar 61 IR1:1:2757)
Dsc: V. S. Aronovici and W. W. Donnan (Sept 61 IR3:87:2949)
Clo: June 62 IR2:89:3170

HILLEL, SHUVAL
"Economics of Composting Municipal Refuse" (July 62 SA4:47:3201)
Dsc: Ralph Stone (Nov 62 SA6:123: 3336)

HIRANANDANI, M. G.
"Strengthening Breakwater at Vizagapatam," with C. V. Gole and Y. D. Pendse (Aug 62 WW3:139:3249)

HOFFMASTER, B. N.
Dsc (Feb 62 SM1:75:3061) of "Field Study of a Cellular Bulkhead" (Aug 61 SM4:89:2902)

HOLLAND, JOHN E.
Dsc (Dec 62 SM6:255:3378) of "Behavior of Pipes Buried in Expansive Clays" (Apr 62 SM2:133:3103)

HOLLEY, E. R., JR.
See Donald R. F. Harleman (Nov 62 SA6:109:3336)

HOLMES, RAY E.
Dsc (Feb 62 WW1:165:3068) of "Columbia River Ship Channel Improvement and Maintenance" (Aug 61 WW3: 71:2883)

HOLTZ, W. G.
"Soil-Cement as Slope Protection for Earth Dams," with F. C. Walker (Dec 62 SM6:107:3361)
Dsc (Aug 62 SM4:207:3250) with H. J. Gibbs of "Prediction of Swelling Potential for Compacted Clays" (June 62 SM3:53:3169)

HONDROS, G.
"Load Distribution in Composite Girder-Slab Systems," with J. G. Marsh (Nov 60 ST11:79:2645)
Corr: Mar 61 ST3:67:2787
Dsc: William Zuk (June 62 ST3:271: 3179); A. A. Eremin (June 62 ST3:277: 3179)
Clo: Oct 62 ST5:167:3309

HOOPES, J. A.
See Donald R. F. Harleman (Nov 62 HY6:199:3338)

HORONJEFF, ROBERT
"Runways and Taxiways for Supersonic Transports" (Aug 62 AT1:43: 3236)

HORTON, CARTER HALE
"Steel Pipe Marine Corrosion and Cathodic Protection" (Aug 61 WW3:59: 2877)
Dsc: David Hendrickson (Feb 62 WW1: 163:3068)

HOUBOLT, JOHN C.
"Runway Roughness Studies in the Aeronautical Field" (Mar 61 AT1:11: 2774)
Dsc: A. A. Eremin (Aug 62 AT1:41: 3251)
Clo: Aug 62 AT1:41:3251

HOUSNER, GEORGE W.
"Dynamic Behavior of Supercritically Loaded Struts," with Wai Keung Tso (Oct 62 EM5:41:3296)
"Vibrations of Linearly Tapered Cantilever Beams," with W. O. Keightley (Apr 62 EM2:95:3101)
Dsc: R. F. Rissone and J. J. Williams (Oct 62 EM5:191:3307)
Dsc (Feb 62 EM1:79:3060) of "Effect of Structure and Foundation Interaction" (Oct 61 EM5:1:2960)

HOWARD, CHARLES D. D.
Dsc (Nov 62 HY6:235:3338) of "Sediment Transport Mechanics: Introduction and Properties of Sediment: Progress Report of the Task Committee on Preparation of Sedimentation Manual of the Committee on Sedimentation of the Hydraulics Division" (July 62 HY4:77:3194)

HOWE, ROBERT T.
"Polyvinyl Acetate and Portland Cement Mortars" (Feb 60 CO1:31:2358)
Dsc: Clara F. Derrington (Nov 60 CO3:69:2664)
Clo: Jan 62 CO1:61:3042

HOWLAND, W. E.
Dsc (Jan 62 SA1:38:3043) of "Trickling Filtration Design and Performance" (July 61 SA4:33:2860)

HRONCICH, M. J.
"Symposium on Pumped Storage: Run-of-River Pumped Storage—Smith Mountain Project," with J. M. Mullarkey (July 62 PO2:183:3203)
See E. A. Kammer (Sept 62 PO3:13:3265)

HSU, SHIH-TA
Dsc (May 62 WW2:163:3153) of "Economic Evaluation of Inland Waterway Projects" (Aug 61 WW3:29:2876)

HUANG, EUGENE Y.
"In-Situ Stability of Soil-Aggregate Road Materials" (May 62 HW1:43:3136)

HUANG, TSENG
Dsc (Oct 62 ST5:169:3309) of "Dynamic Response of Highway Bridges" (Oct 61 ST7:31:2955)

HUBBELL, D. W.
Dsc (July 62 HY4:287:3209) with W. L. Haushild of "Dual Channel Stream Monitor" (Nov 61 HY6:1:2976)

HUBERT, FRANCIS J.
"Simplified Sag-Tension Equations for Power Lines" (May 62 PO1:67:3134)

HUEY, S. E.
Dsc (Apr 62 ST2:159:3108) of "Moments at Selected Points in Continuous Girders" (Dec 61 ST8:193:3025)

HUFF, F. A.
See G. E. Stout (July 62 HY4:129:3196)

HUGHES, ROSS B.
See Werner N. Grune (Jan 62 SA1:1:3036)

HULL, FREDERICK H.
"Stability Analysis of Multi-Level Guyed Towers" (Apr 62 ST2:61:3091)

HUMPHREYS, JOHN S.
"Dynamic Buckling of Shells Under Impulsive Loading," with Sol R. Bodner (Apr 62 EM2:17:3094)
Dsc: Myron E. Lunchick (Aug 62 EM4:139:3244); John J. Burns, Jr. (Dec 62 EM6:149:3375)

HUTCHINSON, RONALD L.
"Strengthening Existing Airport Pavements," with Thurman R. Wathen (Aug 62 AT1:77:3243)

IMHOFF, ROBERT O.
"Civil Engineering in Steam Electric Plant Design" (Sept 62 PO3:97:3272)

INGLIS, CLAUDE C.
Dsc (July 62 HY4:328:3209) of "Stability of Alluvial Channels" (Nov 61 HY6:109:2984)

INGOLS, R. S.
See R. D. Wilroy (Sept 62 SA5:51:3288)

INGRAM, WILLIAM T.
"Air Resources Engineering: Progress Report of the Research Council on Air Resources Engineering, ASCE" (May 62 SA3:15:3119)

IPPEN, ARTHUR T.
"Boundary Shear Stresses in Curved Trapezoidal Channels," with P. A. Drinker (Sept 62 HY5:143:3273)
"Research and the Professional Society" (Oct 61 PP2:35:2952)
Dsc: William K. Weight and Ray L. Derby (May 62 PP1:37:3151)

IRELAND, E.
"Civil Engineer's Responsibilities in Design of Steam Electric Stations" (Sept 62 PO3:1:3262)

IVES, KENNETH J.
"Filtration Using Radioactive Algae" (May 61 SA3:23:2820)
Dsc: Arun Kumar Deb (Jan 62 SA1:27:3043)
Clo: May 62 SA3:165:3150
Dsc (Nov 62 SA6:117:3336) of "Mechanism of Coagulation in Water Treatment" (Mar 62 SA3:1:3117)

JASKI, FRANK E.
"Symposium on Pumped Storage: American Pumped Storage Equipment and Operation" (Dec 62 PO4:135:3370)

JENKINS, EDWARD D.
"Ground-Water Technology and Litigation Problems," with Edward A. Moulder (June 62 IR2:21:3166)
Dsc: Wayne D. Criddle and Dallin Jensen (Dec 62 IR4:61:3377); Leslie C. Jopson (Dec 62 IR4:63:3377)

JENSEN, DALLIN
See Wayne D. Criddle (Dec 62 IR4:61:3377)

JENSEN, EUGENE T.
"Legal Considerations in Water-Resources Planning" (Mar 62 SA2:85:3080)
Dsc: Bayard F. Snow (Sept 62 SA5:53:3288)

JENSEN, MARVIN E.
Dsc (June 62 IR2:119:3170) with Howard R. Haise of "Evaporation from Pyramid and Winnemucca Lakes, Nevada" (Mar 62 IR1:1:3083)

JENSEN, WILLARD C.
"Timber Piles in Permafrost at Alaskan Radar Station" (Feb 61 SM1:15:2734)
Dsc: Kenneth A. Linell, Frederick E. Crory, James F. Haley, and Charles A. Pickering, Jr. (Aug 62 SM4:141:3250)
Clo: Aug 62 SM4:151:3250

JOHN, KLAUS W.
"An Approach to Rock Mechanics" (Aug 62 SM4:1:3223)
Dsc: Lawrence Adler (Dec 62 SM6:291:3378)

JOHNSON, J. W.
Dsc (Jan 62 HY1:149:3044) of "Some Legal Aspects of Sedimentation" (July 61 HY4:151:2867)

JOHNSON, P. B. R.
Dsc (Apr 62 ST2:155:3108) of "Economy of High Strength Steel Structural Members" (Dec 61 ST8:1:3010)

JOHNSON, STANLEY M.
See Paul E. Morgan (Sept 62 HY5:199:3279)

JOHNSON, SIDNEY M.
"Determining the Capacity of Bent Piles" (Dec 62 SM6:65:3349)
Dsc (Feb 62 SM1:67:3061) of "Field Study of a Cellular Bulkhead (Aug 61 SM4:89:2902)

JOHNSTON, BRUCE G.
"Buckling Behavior Above the Tangent Modulus Load" (Dec 61 EM6:79:3019)
Dsc: H. B. Harrison (June 62 EM3:169:3173); L. Tall and F. R. Estuar (Oct 62 EM5:171:3307)
Dsc (Aug 62 EM4:137:3244) of "Post-Buckling Strength of Wide-Flange Beams" (Feb 62 EM1:59:3059)

JONES, BEN A., JR.
See Robert L. McFall (Mar 62 IR1:41:3085)

JONES, CHESTER W.
"Compacted Loessial-Soil Canal Linings," with C. A. Lowitz (Dec 62 IR4:1:3354)

JONES, KEITH
"Restraint of Structures Attached to Mass Concrete" (Dec 61 ST8:25:3014)
Dsc: Marvin A. Larson (Apr 62 ST2:157:3108)
Clo: Dec 62 ST6:285:3376

JONES, WILLIAM P., JR.
Dsc (Nov 62 HY6:233:3338) of "Perspective on National Water Resources Planning" (July 62 HY4:17:3188)

JONKER, F. H.
See I. W. McCaig (Nov 62 HY6:222:3338)

JOPSON, LESLIE C.
Dsc (Dec 62 IR4:63:3377) of "Ground-Water Technology and Litigation Problems" (June 62 IR2:21:3166)

JORDAN, RICHARD H.
"Airport Location in Relation to Urban Transport" (Aug 62 AT1:99:3245)

JUHL, HEINZ G.
"Deformation of Structures at Ultimate Load" (Aug 62 ST4:69:3235)

KAEGI, JAKOB
Dsc (May 62 PP1:51:3151) of "Atomic Power, A Failure in Engineering Responsibility" (Oct 61 PP2:43:2975)

KALDJIAN, MOVSES J.
"Prestressed Bowstring Arch" (Oct 61 ST7:1:2953)
Dsc: R. Dabrowski (Apr 62 ST2:145:3108)
Clo: Aug 62 ST4:215:3254

KAMMER, E. A.
"Civil Engineering Features of Steam Electric Plant Design," with M. J. Hroncich (Sept 62 PO3:13:3265)

KAR, SUBIR
Dsc (Jan 62 HY1:131:3044) of "End-Depth at a Drop in Trapezoidal Channels" (July 61 HY4:11:2851)

KARAKI, SUSUMU S.
"Dual Channel Stream Monitor," with Earl E. Gray and Jack Collins (Nov 61 HY6:1:2976)
Dsc: Richard A. Stein (May 62 HY3: 217:3144); D. W. Hubbell and W. L. Haushild (July 62 HY4:287:3209)

KAROL, R. H.
"Symposium on Grouting: Grouting in Flowing Water and Stratified Deposits," with A. M. Swift (Apr 61 SM2: 125:2797)
Dsc: Judson P. Elston (Dec 61 SM6: 67:3032)
Clo: June 62 SM3:203:3171

KASSIFF, GABRIEL
"Behavior of Pipes Buried in Expansive Clays," with Joseph G. Zeitlen (Apr 62 SM2:133:3103)
Dsc: John E. Holland (Dec 62 SM6: 255:3378)

KAZMANN, RAPHAEL G.
Dsc (June 62 IR2:116:3170) of "Friant-San Joaquin River Litigation" (Dec 61 IR4:27:3007)

KEE, CHIN FUNG
"Lateral Enelastic Buckling of Tied Arches" (Jan 61 ST1:23:2704)
Dsc: M. Gregory (Aug 61 ST6:197: 2915)
Clo: Feb 62 ST1:195:3066

KEEFER, C. E.
Dsc (Sept 62 SA5:49:3288) of "Advances in Sludge Disposal in the Period from October 1, 1954, to February 1, 1960: Progress Report of the Subcommittee on Sludge Disposal of the Committee on Sewerage and Sewage Treatment of the Sanitary Engineering Division" (Mar 62 SA2:13:3075)

KEIGHTLEY, W. O.
See G. W. Housner (Apr 62 EM2:95: 3101)

KEIM, PAUL F.
Dsc (May 62 HY3:248:3144) of "Cyclical Variations in World-Wide Hydrologic Data" (Nov 61 HY6:71:2982)
Dsc (May 62 SA3:181:3150) of "Reclaiming Hyperion Effluent" (Nov 61 SA6:1:2985)

KEIM, S. RUSSELL
"Contra Costa Energy Dissipator" (Mar 62 HY2:109:3077)
Dsc: Roy F. Warner (Sept 62 HY5: 335:3290); M. B. McPherson (Nov 62 HY6:193:3338)

KENNEDY, THOMAS B.
"Symposium on Grouting: Research in Foundation Grouting with Cement" (Apr 61 SM2:55:2794)
Dsc: Judson P. Elston (Aug 61 SM4: 203:2917); Robert E. White (Dec 61 SM6:57:3032)
Clo: Feb 62 SM1:47:3061
Add: June 62 SM3:195:3171)

KENT, ARNOLD
Dsc (Sept 62 HY5:345:3290) of "Perspective on National Water Resources Planning" (July 62 HY4:17:3188)

KEPPEL, R. V.
"Transmission Losses in Ephermeral Stream Beds," with K. G. Renard (May 62 HY3:59:3116)
Dsc: H. V. Peterson (Sept 62 HY5: 339:3290)

KERR, J.
Dsc (Jan 62 HY1:116:3044) of "Water Surface Profiles in Irregular Natural Streams" (July 61 HY4:1:2849)
Dsc (Mar 62 HY2:181:3087) of "Estimating the Probable Maximum Precipitation" (Sept 61 HY5:99:2933)

KERR, S. LOGAN
Dsc (Sept 62 HY5:291:3290) of "Philosphy of Hydraulics" (Jan 62 HY1:45: 3040)

KESHAVAN, K.
See V. C. Behn (Jan 62 SA1:31:3043)

KETTER, ROBERT L.
"Further Studies of the Strength of Beam-Columns" (Aug 61 ST6:135:2879)
Dsc: Philip L. Gould (Dec 61 ST8: 265:3029); Morris Ojalvo (Dec 61 ST8: 266:3029)
Clo: June 62 ST3:319:3179
See Charles M. Fogel (Oct 62 ST5:67: 3301)

KICHER, THOMAS P.
See Lucien A. Schmit, Jr. (June 62 ST3:79:3161)

KIDSON, C.
"Marking Beach Materials for Tracing Experiments," with A. P. Carr (July 62 HY4:43:3189)

KIKER, JOHN E., JR.
"Radiological Curricula for Sanitary Engineers," with F. Wellington Gilcreas (Mar 61 SA2:1:2767)
Dsc: Gilbert H. Dunstan (Sept 61 SA5: 91:2918); E. J. Kilcawley (Nov 61 SA6: 145:3003); George B. Morgan (Nov 61 SA6:147:3003)
Clo: July 62 SA4:65:3206

KIMISHIMA, HIROTSUGU
Dsc (Apr 62 ST2:139:3108) of "Dead-Load Stress in Model Dams by Method of Integration" (Aug 61 ST6:31:2903)

KING, JOHN C.
"Symposium on Grouting: Grouting of Granular Materials," with Edward G. W. Bush (Apr 61 SM2:1:2791)
Dsc: Judson P. Elston (Aug 61 SM4: 197:2917); R. H. Grise (Oct 61 SM5: 117:2972); Emile Huni (Dec 61 SM6:53: 3032); John E. Wagner (Dec 61 SM6:55: 3032)
Clo: June 62 SM3:193:3171

KIRPICH, PHILLIP Z.
Dsc (May 62 HY3:253:3144) of "Cyclical Variations in World-Wide Hydrologic Data" (Nov 61 HY6:71:2982)

KLOHN, EARLE J.
"Pile Heave and Redriving" (Aug 61 SM4:125:2905)
Dsc: Stephen M. Olko (Dec 61 SM6: 87:3032); R. L. Nordlund (Feb 62 SM1: 77:3061); Robert D. Chellis (Feb 62 SM1:78:3061); Claude A. Fetzer (Feb 62 SM1:80:3061); I. R. Robinson and L. S. McLennan (Apr 62 SM2:159:3105); William W. Moore (Apr 62 SM2:160: 3105)

KNIGHT, WILLIAM R.
"Two-Sample Method for Pavement Deflection Survey," with Jong Ping Chen (Sept 62 HW2:37:3280)

KNOTT, ALBERT
Dsc (June 62 ST3:340:3179) of "Experimental and Analytical Study of a Folded Plate" (Dec 61 ST8:139:3023)

KOEPSELL, PAUL L.
Dsc (Aug 62 ST4:217:3254) with Fred Ritterhaus of "Folded Plate Structures of Light Gage Steel" (Oct 61 ST7:215: 2970)

KOHL, JOHN C.
"Defining the Term 'Urban Planning': Progress Report of the Committee on Terminology Used in the Practice of City Planning of the City Planning Division" (Aug 62 CP1:37:3222)

KOLF, R. C.
"Vector Aspects of Dynamic Similarity," with W. L. Reitmeyer (Mar 61 HY2:19:2763)
Dsc: W. D. Baines and J. F. Keffer (July 61 HY4:263:2872); Charles E. Behlke, James R. Steven (Sept 61 HY5: 219, 222:2920)
Clo: Jan 62 HY1:91:3044

KOLOSEUS, HERMAN J.
Dsc (Jan 62 HY1:97:3044) of "Roughness Spacing in Rigid Open Channels" (May 61 HY3:121:2923)

KOLUPAILA, STEPONAS
Dsc (May 62 HY3:237:3144) of "Cyclical Variations in World-Wide Hydrologic Data" (Nov 61 HY6:71:2982)

KONDNER, ROBERT L.
"Friction Pile Groups in Cohesive Soil" (June 62 SM3:117:3175)

KRAMRISCH, FRITZ
"Simplified Design of Combined Footings," with Paul Rogers (Oct 61 SM5: 19:2959)
Dsc: Jacob Feld (Apr 62 SM2:169: 3105); Andrew Reti (June 62 SM3:215: 3171)
Clo: Dec 62 SM6:235:3378

KRENKEL, PETER A.
"Turbulent Diffusion and the Reaeration Coefficient," with Gerald T. Orlob (Mar 62 SA2:53:3079)
Dsc: R. D. Wilroy and R. S. Ingols (Sept 62 SA5:51:3288); William E. Dobbins (Nov 62 SA6:107:3336); Donald R. F. Harleman and E. R. Holley, Jr. (Nov 62 SA6:109:3336)

KRISHNAMOORTHY, G.
See Kuang-Han Chu (June 62 ST3:35: 3157)

KRUKA, V.
See S. Eskinazi (Apr 62 EM2:125: 3106)

KRUSE, CORNELIUS W.
See Wilfredo L. Reyes (Nov 62 SA6: 15:3323)

KUDROFF, MARVIN J.
"Titan ICBM Hardened Facilities" (Jan 62 CO1:41:3041)
Dsc: Norman N. Stout (Sept 62 CO2: 105:3287)

KUNZE, WALTER E.
"Survey of European Concrete Crossties" (Apr 62 ST2:111:3104)
Dsc: Francisco Gomez-Perez (Aug 62 ST4:257:3254)

KURIHARA, MICHINORI
Dsc (Aug 62 WW3:171:3252) of "Pneumatic Breakwaters to Protect Dredges" (May 61 WW2:67:2815)

KURTZ, MAX
Dsc (Jan 62 HY1:139:3044) of "Continuous Parabolic Interpolation" (July 61 HY4:99:2865)
Dsc (Feb 62 ST1:205:3066) of "String Polygon Analysis of Frames with Straight Members" (Oct 61 ST7:63:2956)
Dsc (Apr 62 ST2:161:3108) of "Moments at Selected Points in Continuous Girders" (Dec 61 ST8:193:3025)
Dsc (Aug 62 ST4:240:3254) of "Influence Lines for Fixed Symmetrical Arches by Relaxation Method" (Feb 62 ST1:13:3049)

LACEY, GERALD
Dsc (May 62 HY3:267:3144) of "Stability of Alluvial Channels" (Nov 61 HY6:109:2984)

LAI, CHINTU
See Victor L. Streeter (May 62 HY3: 79:3135)

LAIRD, ALAN D. K.
"Laminar-Turbulent Transition in Waved Tubes," with Russell K. Brunner, and Kenneth E. Haughton (Jan 62 HY1:1:3035)
"Water Eddy Forces on Oscillating Cylinders," with Charles A. Johnson and Robert W. Walker (Nov 60 HY9:43: 2652)
Dsc: Donald VanSickle (May 61 HY3: 201:2827); Phillip R. Smith (July 61 HY4:243:2872)
Clo: Jan 62 HY1:81:3044
"Water Forces on Flexible Oscillating Cylinders" (Aug 62 WW3:125:3234)

LAMBE, T. WILLIAM
"Pore Pressures in a Foundation Clay" (Apr 62 SM2:19:3097)
Dsc: D. Hugh Trollope and Alan K. Parkin (Oct 62 SM5:41:3306)
Dsc (May 62 HW1:77:3145) of "Highway Pipeline Crossing Practice: Progress Report of the Committee on Pipeline Crossings" (Sept 61 HW3:11:2947)

LAMONT, CHARLES M.
"Self-Checking Method of Computing Curve Elevations" (Feb 60 SU1:1:2365)
Dsc: T. F. Hickerson (July 60 SU2: 34:2560); Alfred W. Fisher (Jan 61 SU1: 47:2719)
Clo: Nov 62 SU1:65:3337

LANDWEBER, LOUIS
Dsc (May 62 HY3:223:3144) of "Calculation of Potential Flows with Free Streamlines" (Nov 61 HY6:17:2977)

LANE, K. S.
"Tuttle Creek Dam of Rolled Shale and Dredged Sand," with R. G. Fehrman (Dec 60 SM6:11:2681)
Dsc: Stafford C. Happ (Aug 61 SM4: 183:2917)
Clo: Feb 62 SM1:31:3061

LANE, T. A.
"River Hydraulics in 1861," with E. J. Williams, Jr. (Aug 62 WW3:1:3211)

LANGDON, PAUL E.
See Samuel A. Greeley (July 62 SA4: 69:3206)

LANGEFORS, BÖRJE
Dsc (Oct 62 ST5:187:3309) of "Analysis of Structures by System Theory" (Apr 62 ST2:1:3088)

LARNACH, W. J.
Dsc (June 62 SM3:241:3171) of "Static and Dynamic Behavior of Small Footings" (Dec 61 SM6:29:3020)

LARSON, MARVIN A.
Dsc (Apr 62 ST2:157:3108) of "Restraint of Structures Attached to Mass Concrete" (Dec 61 ST8:25:3014)

LARSON, THOMAS D.
Dsc (Jan 62 CO1:69:3042) of "Agregates and Fly-Ash Concrete for Barley Lock" (Mar 61 CO1:1:2759)

LASZLO, F.
"Stability of Granular Masses" (Dec 62 EM6:115:3367)

LATHAM, G. R.
Dsc (May 62 PO1:181:3149) of "Penstocks and Scroll Cases for Niagara Power Project" (Nov 61 PO3:1:2979)

LAURENSON, E. M.
Dsc (Jan 62 HY1:145:3044) of "Use of Computers for Kansas River Flood Studies" (July 61 HY4:113:2866)

LAURSEN, EMMETT M.
Dsc (May 62 HY3:225:3144) of "Study of Scour Around Spur-Dikes" (Nov 61 HY6:23:2978)

LAVERTY, FINLEY B.
"Reclaiming Hyperion Effluent," with Ralph Stone and Lawrence A. Meyerson (Nov 61 SA6:1:2985)
Dsc: P. H. McGauhey (May 62 SA3: 177:3150); John J. Baffa (May 62 SA3: 179:3150); Max Suter (May 62 SA3:180: 3150); Paul F. Keim (May 62 SA3:181: 3150); Samuel A. Greeley and Paul E. Langdon (July 62 SA4:69:3206)

LAWTON, F. L.
Dsc (July 62 PO2:259:3208) of "Current Developments in Hydro-Electric Plant Design" (Nov 61 PO3:55:2995)
Dsc (July 62 PO2:257:3208) of "Fish Handling Facilities for Baker River Project" (Nov 61 PO3:23:2993)
Dsc (July 62 PO2:255:3208) of "Penstocks and Scroll Cases for Niagara Power Project" (Nov 61 PO3:1:2979)
Dsc (July 62 PO2:261:3208) of "Underground Power Plants in Yugoslavia" (Nov 61 PO3:81:2998)

LAZEAR, T.
Dsc (Dec 62 ST6:335:3376) of "Analytical Approach to Biaxial Eccentricity" (Aug 62 ST4:105:3239)

LEE, CHARLES E.
"Groins on the Shores of the Great Lakes" (May 61 WW2:89:2819)
Dsc: A. C. Rayner and R. L. Rector (Nov 61 WW4:137:3004)
Clo: May 62 WW2:157:3153

LEE, CHARLES H.
"Friant-San Joaquin River Litigation" (Dec 61 IR4:27:3007)
Dsc: Otto W. Peterson (June 62 IR2: 115:3170); Raphael G. Kazmann (June 62 IR2:116:3170); C. E. Busby (Sept 62 IR3:45:3286)

LEE, FRANCIS S. Y.
"Critical Flow in Terms of Hydraulic Equivalents" (June 62 IR2:1:3155)
Dsc: N. Rajaratnam (Dec 62 IR4:55: 3377); S. Davis (Dec 62 IR4:58:3377)

LEE, GEORGE C.
"Post-Buckling Strength of Wide-Flange Beams," with Theodore V. Galambos (Feb 62 EM1:59:3059)
Dsc: Campbell Massey (June 62 EM3: 177:3173); Bruce G. Johnston (Aug 62 EM4:137:3244)

LEE, LAWRENCE H. N.
"Stability of Non-Linear Systems" (Apr 62 EM2:81:3099)
Dsc: Giuliano Augusti (Oct 62 EM5: 185:3307)

LEESON, ELWOOD R.
"1961 Daniel W. Mead Prize for Associate Members: Report of the Committee on Younger Members of the Department of Conditions of Practice, ASCE" (May 62 PP1:5:3132)

LEGGET, ROBERT F.
"Experiences with Ground Water on Construction" (Apr 62 SM2:1:3092)
Dsc (Aug 62 SM4:189:3250) of "Influence of Geological Conditions on Uplift" (Dec 61 SM6:1:3008)

LEIMDORFER, P.
Dsc (May 62 WW2:159:3153) of "Operative Energy Concept in Marine Fendering" (Aug 61 WW3:1:2875)

LELIAVSKY, SERGE
Dsc (Apr 62 SM2:181:3105) of "Analysis of Seepage Problems" (Oct 61 SM5: 91:2971)
Dsc (May 62 HY3:203:3144) of "Seepage Through Layered Anisotropic Porous Media" (May 61 HY3:31:2810)
Dsc (July 62 HY4:209:3209) of "Uniform Water Conveyance Channels in Alluvial Material" (May 60 HY5:33:2484)

LE MÉHAUTÉ, BERNARD
"Theory, Experiments, and a Philosophy of Hydraulics" (Jan 62 HY1:45:3040)
Dsc: G. Combes (May 62 HY3:277: 3144); M. S. Misra (July 62 HY4:339: 3209); R. M. Advani (July 62 HY4:340: 3209); S. Logan Kerr (Sept 62 HY5:291: 3290); F. V. A. Engel (Sept 62 HY5:293: 3290)
Dsc (May 62 WW2:173:3153) of "Harbor Paradox" (Aug 61 WW3:111:2888)

LESLIE, DANA D.
Dsc (Aug 62 SM4:185:3250) with John M. Bird of "Influence of Geological Conditions on Uplift" (Dec 61 SM6:1:3008)

LEVY, ROY
"Displacements of Circular Rings with Normal Loads" (Feb 62 ST1:23:3051)

LEWIS, DAVID J.
"Hydro System Power Analysis by Digital Computer," with Loren A. Shoemaker (May 62 HY3:113:3139)

LEY, R. D.
"Symposium on Pumped Storage: General Planning of Pumped Storage," with E. S. Loane (July 62 PO2:211:3204)
Dsc: Paul E. Gisiger (July 62 PO2:263:3208); Adolf A. Meyer (Dec 62 PO4:211:3374)

LI, M. C.
Dsc (Dec 62 SM6:267:3378) of "Prediction of Swelling Potential for Compacted Clays" (June 62 SM3:53:3169)

LI, SHU-T'IEN
"Economic Evaluation of Inland Waterway Projects," with Eric E. Bottoms (Aug 61 WW3:29:2876)
Dsc: Harland C. Woods (Feb 62 WW1:161:3068); Shih-Ta Hsu (May 62 WW2:163:3153)
Clo: Nov 62 WW4:97:3335)
"Evaluation of Mooring Forces" (Nov 62 WW4:19:3313)
"Metallic Dome-Structure Systems" (Dec 62 ST6:201:3358)
"Operative Energy Concept in Marine Fendering" (Aug 61 WW3:1:2875)
Dsc: John Elliott George Palmer (Feb 62 WW1:159:3068); P. Leimdorfer (May 62 WW2:159:3153)
Dsc (Aug 62 WW3:190:3252) of "Berthing and Mooring Forces" (Feb 62 WW1:71:3050)

LI, WEN-HSIUNG
"Mechanics of Pipe Flow Following Column Separation" (Aug 62 EM4:97:3253)
"Unsteady Dissolved-Oxygen Sag in a Stream" (May 62 SA3:75:3129)

LIEBENBERG, A. C.
Dsc (Dec 62 ST6:327:3376) of "Analysis of Free Straight Multiflight Staircases" (June 62 ST3:207:3168)
Dsc (Dec 62 SM6:278:3378) of "Load-Carrying Capacity of Concrete Pavements" (June 62 SM3:89:3174)

LIGGETT, JAMES A.
"General Solution for Open Channel Profiles" (Nov 61 HY6:89:2983)
Dsc: Edward J. Low (Mar 62 HY2:193:3087); D. L. Brakensiek (May 62 HY3:255:3144); Cornelius C. S. Shih (July 62 HY4:315:3209)
Clo: Nov 62 HY6:175:3338

LIND, N. C.
"Analysis of Structures by System Theory" (Apr 62 ST2:1:3088)
Dsc: Börje Langefors (Oct 62 ST5:187:3309); David H. Cheng (Dec 62 ST6:297:3376); Charles H. Samson, Jr. (Dec 62 ST6:301:3376)
Dsc (Aug 62 ST4:235:3254) of "Critical Buckling Loads for Tapered Columns" (Feb 62 ST1:1:3045)
Dsc (Aug 62 ST4:255:3254) of "Limit Design of Crossed Steel Beams" (Feb 62 ST1:135:3064)

LINELL, KENNETH A.
Dsc (Aug 62 SM4:141:3250) with Frederick E. Crory, James F. Haley, and Charles A. Pickering, Jr., of "Timber Piles in Permafrost at Alaskan Radar Station" (Feb 61 SM1:15:2734)

LINSLEY, ROY K.
Dsc (May 62 HY3:246:3144) of "Cyclical Variations in World-Wide Hydrologic Data" (Nov 61 HY6:71:2982)

LISCHER, VANCE C.
"Simplified Water Filtration Plant Design" (May 62 SA3:55:3127)

LIST, E. J.
Dsc (Sept 62 IR3:59:3286) of "Depth and Spacing of Tile Drain System" (Mar 62 IR1:15:3084)

LIU, HENRY
See A. R. Robinson (June 62 IR2:112:3170)

LO, KWAN YEE
"Secondary Compression of Clays" (Aug 61 SM4:61:2885)
Dsc: T. K. Chaplin (Dec 61 SM6:85:3032); Pablo Girault (Feb 62 SM1:63:3061); William D. Finn and N. D. Nathan (Feb 62 SM1:65:3061)
Clo: Aug 62 SM4:169:3250

LOANE, E. S.
See R. D. Ley (July 62 PO2:211:3204)

LOFFTS, HENRY T.
See Reed A. Elliot (May 62 PO1:89:3137)

LONG, ROBERT R.
"Velocity Concentrations in Stratified Fluids" (Jan 62 HY1:9:3038)
Dsc: Chia-Shun Yih (Sept 62 HY5:285:3290)

LONGACRE, LEONARD L.
"Evaporation at High Elevations in California," with Harry F. Blaney (June 62 IR2:33:3172)
Dsc: Kenneth M. Turner (Dec 62 IR4:65:3377); J. E. Christiansen (Dec 62 IR4:65:3377)

LOUTZENHEISER, DONALD W.
"New Concepts for Urban Freeway Interchanges" (May 62 HW1:29:3124)

LOW, EDWARD J.
"Optimum Penstock Diameter in Hydroelectric Plants" (July 62 PO2:9:3186)
Dsc: Raoul Sabljak (Dec 62 PO4:193:3374)
Dsc (Jan 62 HY1:163:3044) of "Uniform Flow in a Shallow, Triangular Open Channel" (Sept 61 HY5:149:2936)
Dsc (Mar 62 HY2:193:3087) of "General Solution for Open Channel Profiles" (Nov 61 HY6:89:2983)

LOW, GEORGE J.
"Soil Freezing to Reconstruct a Railway Tunnel" (Nov 61 CO3:1:2639)
Dsc: A. S. Robinson (Jan 62 CO1:67:3042)

LOWITZ, C. A.
See Chester W. Jones (Dec 62 IR4:1:3354)

LUECKER, ARTHUR R.
"Guide for the Development of Flood Plain Regulations: Progress Report of the Task Force on Flood Plain Regulations of the Committee on Flood Control of the Hydraulics Division" (Sept 62 HY5:73:3264)

LUNCHICK, MYRON E.
"Plastic Buckling Pressure for Spherical Shells" (Dec 62 EM6:13:3352)
Dsc (Aug 62 EM4:139:3244) of "Dynamic Buckling of Shells Under Impulsive Loading" (Apr 62 EM2:17:3094)

LUNDGREN, RAYMOND
See H. Bolton Seed (June 62 SM3:53:3169)

LUNT, O. R.
Dsc (June 62 IR2:109:3170) of "Tolerance of Plants to Salinity" (Dec 61 IR4:1:3005)

LUSCHER, ULRICH
See Robert V. Whitman (Dec 62 SM6:135:3366)

LUSCZYNSKI, NORBERT J.
"Fresh and Salty Ground Water in Long Island, N. Y.," with Wolfgang V. Swarzenski (July 62 HY4:173:3207)

LYCAN, DANIEL L.
"Effect of Structure and Foundation Interaction," with Nathan M. Newmark (Oct 61 EM5:1:2960)
Dsc: George W. Housner (Feb 62 EM1:79:3060); R. O. Belsheim and G. J. O'Hara (Apr 62 EM2:157:3107)

LYDDAN, ROBERT H.
"Civil Requirements for Topographic Maps" (Nov 62 SU1:1:3314)

MacDONALD, R. E.
See W. Hiatt (Dec 62 PO4:203:3374)

MACKINTOSH, ALBYN
"Reinforced Masonry Design and Practice, Progress Report-Task Committee on Reinforced Masonry Design and Practice-Committee on Masonry and Reinforced Concrete" (Dec 61 ST8:87:3022)
Dsc: Paul F. Rice (June 62 ST3:337:3179); Amos Atlas (Aug 62 ST4:229:3254)

MACKRLE, S.
"Mechanism of Coagulation in Water Treatment" (May 62 SA3:1:3117)
Dsc: K. J. Ives (Nov 62 SA6:117:3336); James M. Morgan and Werner Stumm (Nov 62 SA6:119:3336); R. F. Packham (Nov 62 SA6:121:3336)

MacLEAN, BERTON M.
"Model and Prototype Research on Fish Ladders" (July 61 PO2:57:2856)
Dsc: C. H. Clay (Nov 61 PO3:121:2999)
Clo: May 62 PO1:177:3149

MacNEAL, RICHARD H.
"Passive Analog Computers for Structural Analysis" (June 62 ST3:103:3162)
Dsc: Frederick L. Ryder (Oct 62 ST5:191:3309)

MADDOCK, THOMAS
Dsc (June 62 IR2:101:3170) of "Consumptive Use and Water Waste by Phreatophytes" (Sept 61 IR3:37:2929)

MAGNESON, NORMAN J.
"Navy's Most Powerful Radio Facility" (Sept 62 CO2:57:3282)

MALAIKA, JAMIL
"Flow in Noncircular Conduits" (Nov 62 HY6:1:3310)

MANN, JOHN F., JR.
"Factors Affecting the Safe Yield of Ground-Water Basins" (Sept 61 IR3:63:2948).
Dsc: Robert O. Thomas (Mar 62 IR1:43:3085); Max Suter (Mar 62 IR1:45:3085)
Clo: Sept 62 IR3:39:3286)

MANNING, JOHN J.
"Simple Rules for Hot or Cold Weather Concreting" (Nov 60 CO3:37:2661)
Dsc: Richard J. Newson (Mar 61 CO1:89:2785)
Clo: Sept 62 CO2:91:3287

MARIN, JOSEPH
"Symposium on Teaching of Materials: New Type of Course on Engineering Materials" (Aug 62 EM4:83:3247)

MARKUS, ADOLFS
See Harold S. Farney (May 62 HY3:131:3143)

MARMION, KEITH R.
Dsc (May 62 HY3:275:3144) of "Theoretical and Practical Aspects of Well Recharge" (Nov 61 HY6:155:2992)

MARTIN, J. B.
Dsc (Aug 62 ST4:244:3254) of "Design of Frames with Deformation the Prime Criterion" (Feb 62 ST1:55:3053)

MASCH, FRANK D., JR.
"Drag Forces in Velocity Gradient Flow," with Walter L. Moore (July 60 HY7:1:2546)
Dsc: W. D. Baines (Jan 61 HY1:271:2724); Donald Van Sickle (Mar 61 HY2:181:2781)
Clo: July 62 HY4:229:3209

MASSEY, CAMPBELL
"Lateral Bracing Forces of Steel I Beams" (Dec 62 EM6:89:3364)
Dsc (June 62 EM3:177:3173) of "Post-Buckling Strength of Wide-Flange Beams" (Feb 62 EM1:59:3059)

MASUR, E. F.
Dsc (Feb 62 EM1:83:3060) of "Effect of Joint Rotation on Dynamics of Structures" (Dec 61 EM6:135:3028)

MATLOCK, HUDSON
"Generalized Solutions for Laterally Loaded Piles," with Lymon C. Reese (Oct 60 SM5:63:2626)
Dsc: Aleksandar B. Vesic (June 61 SM3:123:2839)
Clo: June 62 SM3:191:3171

MATTHEWS, K. D.
Dsc (Nov 62 HY6:197:3338) with William R. Barr of "Backscour During Floods Above Pits and Basins" (Mar 62 HY2:139:3081)

MAYTIN, IURY L.
"Development of a Variable Resistance Velocity Meter" (Jan 61 HY1:95:2713)
Dsc: M. B. McPherson (July 61 HY4:255:2872)
Clo: Jan 62 HY1:89:3044

McCAIG, I. W.
Dsc (Nov 62 HY6:222:3338) with F. H. Jonker of "Water-Hammer Analysis Including Fluid Friction" (May 62 HY3:79:3135)
Dsc (Nov 62 HY6:209:3338) with J. F. Fulton of "Hydraulic Roughness of Corrugated Pipes" (May 62 HY3:23:3111)
Dsc (Dec 62 PO4:184:3374) of "Design Studies for Chute-des-Passes Surge-Tank System" (May 62 PO1:121:3142)

McCALL, JOHN E.
"Stream-Gaging Network in the United States" (Mar 61 HY2:79:2776)
Dsc: J. C. Stevens (July 61 HY4:259:2872); Eduardo Basso (Nov 61 HY6:217:3000)
Clo: July 62 HY4:231:3209

McCLENDON, ELMO W.
See Thorndike Saville, Jr. (May 62 WW2:93:3138)

McCULLOUGH, BENJAMIN F.
"LTS Design of Continuously Reinforced Concrete Pavements," with William B. Ledbetter (Dec 60 HW4:1:2677)
Dsc: William Zuk, Howard Newlon, Jr., and R. A. Mitchell, Bengt F. Friberg (June 61 HW2:31,33:2841); I. J. Taylor (Sept 61 HW3:33:2919)
Clo: May 62 HW1:73:3145

McCULLOUGH, C. ROGERS
See Morton I. Goldman (May 62 PP1: 46:3151)

McEWAN, JOHN S.
"Bank and Levee Stabilization, Lower Colorado River" (Nov 61 WW4: 17:2987)
Dsc: Harvill E. Weller (May 62 WW2:201:3153)
Clo: Nov 62 WW4:115:3335

McFALL, ROBERT L.
Dsc (Mar 62 IR1:41:3085) with Ben A. Jones, Jr. of "Soil Drainability Factor in Land Classification" (Sept 61 IR3:47: 2946)

McGAUHEY, P. H.
"Sanitary Engineering Comes of Age" (May 61 SA3:1:2806)
Dsc: Harold Farnsworth Gray (Nov 61 SA6:149:3003); Kenneth D. Kerri (Nov 61 SA6:150:3003)
Clo: Mar SA2:115:3086
Dsc (May 62 SA3:177:3150) of "Reclaiming Hyperion Effluent" (Nov 61 SA6:1:2985)

McHUGHS, JAMES H.
See Hugh C. Getty (Sept 62 HY5:1: 3255)

McKEE, K. E.
Dsc (Feb 62 SM1:81:3061) of "Displacement of Long Footings by Dynamic Loads" (Oct 61 SM5:45:2965)
Dsc (Apr 62 ST2:155:3108) of "Economy of High Strength Steel Structure Members" (Dec 61 ST8:1:3010)

McKINNEY, ROSS E.
"Mathematics of Complete-Mixing Activated Sludge" (May 62 SA3:87:3133)

McLENNAN, L. S.
See I. R. Robinson (Apr 62 SM2:159: 3105)

McNEARY, S. S.
"Hydraulics of Wells in Unconfined Aquifers," with Irwin Remson and H. S. C. Chen (Nov 62 HY6:115:3325)

McNOWN, JOHN S.
Dsc (Apr 62 EM2:153:3093) with L. S. Yu of "Hydrodynamics of Flow into Curb-Opening Inlets" (Aug 61 EM4:1: 2880)

McPHERSON, M. B.
Dsc (Sept 62 HY5:303:3290) with M. Joseph Willis of "Unit Hydrograph Characteristics for Sewered Areas" (Mar 62 HY2:1:3069)
Dsc (Nov 62 HY6:193:3338) of "Contra Costa Energy Dissipator" (Mar 62 HY2: 109:3077)

MEEK, J. L.
"Generalized Displacements in Structural Analysis" (Apr 62 ST2:23:3089)
Dsc: Fernando Venancio Filho (Dec 62 ST6:303:3376); B. J. Hartz (Dec 62 ST6:316:3376)

MERRIMAN, CLEM G.
"Civil Engineering Features of Power Stations" (Sept 62 PO3:63:3269)

MESZAROS, L. J.
Dsc (June 62 EM3:175:3173) of "Effect of Joint Rotation on Dynamics of Structures" (Dec 61 EM6:135:3028)

MEYER, ADOLF A.
Dsc (Dec 62 PO4:211:3374) of "Symposium on Pumped Storage: General Planning of Pumped Storage" (July 62 PO2:211:3204)
Dsc (Dec 62 PO4:176:3374) of "TVA's Paradise Steam Plant" (May 62 PO1: 89:3137)

MEYER, HARVEY L.
"Concrete Reactor Shield" (July 62 PO2:143:3198)

MEYERHOF, G. G.
"Load-Carrying Capacity of Concrete Pavements" (June 62 SM3:89:3174)
Dsc: Paul F. Carlton and Ruth M. Behrmann (Dec 62 SM6:271:3378); A. C. Liebenberg (Dec 62 SM6:278:3378); Frank Penner (Dec 62 SM6:280:3378)

MICHALOS, JAMES
"Design and Stability Considerations for Unique Pier," with David P. Billington (May 61 WW2:1:2807)
Dsc: Palmer W. Roberts (Nov 61 WW4:121:3004); R. B. Peck and M. T. Davisson (Feb 62 WW1:141:3068); R. B. Peck and M. T. Davisson (May 62 WW2: 141:3153)
Clo: May 62 WW2:151:3153
"Dynamic Response and Stability of Piers on Piles" (Aug 62 WW3:61:3221)

MICHALOS, JAMES Continued
"Movements of a Cable Due to Changes in Loading," with Charles Birnstiel (Dec 60 ST12:23:2674)
Dsc: Tadeusz Janiszewski (June 61 ST5:89:2846); D. M. Brotton, N. W. Williamson and M. Millar, Hannsharl Bandel, W. E. Adams, and Jackson L. Durkee (Oct 61 ST7:263,267,270,271:2974)
Corr: Mar 61 ST3:67:2787
Clo: Feb 62 ST1:191:3066

MICHELSEN, WILLIAM R.
See L. V. Baldwin (Apr 62 EM2:37:3095)

MILES, JOHN
"Harbor Paradox," with Walter Munk (Aug 61 WW3:111:2888)
Dsc: Bernard LeMehauté (May 62 WW2:173:3153); Basil W. Wilson (May 62 WW2:185:3153)
Clo: May 62 WW2:194:3153

MILLER, CHARLES A.
"Influence Coefficients for Two-Hinged Arches," with Sidney A. Guralnick (Aug 62 ST4:41:3233)

MILLIGAN, V.
"Experience with Canadian Varved Clays," with L. G. Soderman and A. Rutka (Aug 62 SM4:31:3224)

MINSHALL, NEAL E.
Dsc (Nov 62 HY6:184:3338) with D. A. Woolhiser of "Unit Hydrograph Characteristics for Sewered Areas" (Mar 62 HY2:1:3069)

MISRA, M. S.
Dsc (July 62 HY4:339:3209) of "Philosophy of Hydraulics" (Jan 62 HY1:45:3040)

MITCHELL, DESSO T.
Dsc (Jan 62 SA1:44:3043) of "Survey of Sanitary Landfill Practices: Thirtieth Progress Report" (July 61 SA4:65:2974)

MITCHELL, J. K.
Dsc (Oct 62 SM5:59:3306) of "Friction and Cohesion of Saturated Clays" (June 62 SM3:1:3158)

MITCHELL, J. M., JR.
Dsc (May 62 HY3:243:3144) of "Cyclical Variations in World-Wide Hydrologic Data" (Nov 61 HY6:71:2982)

MOGG, JOE L.
"Interpretation of Pumping Test Anomalies" (Nov 62 HY6:135:3328)

MOH, Z. L.
Dsc (June 62 EM3:173:3173) with John E. Goldberg and J. L. Bogdanoff of "Effect of Joint Rotation on Dynamics of Structures" (Dec 61 EM6:135:3028)

MOH, ZA-CHIEH
"Soil Stabilization with Cement and Sodium Additives" (Dec 62 SM6:81:3356)

MOHAN, DINESH
Dsc (Dec 62 SM6:259:3378) of "Compacting a Dam Foundation by Blasting" (June 62 SM3:33:3160)

MONAHAN, CHARLES J.
"John Day Lock and Dam: Foundation Investigations" (Dec 62 PO4:29:3344)

MONOHAR, MADHAV
Dsc (Nov 62 WW4:144:3335) of "Laboratory Determination of Littoral-Transport Rates" (May 62 WW2:69:3128)

MOORE, WILLIAM W.
Dsc (Apr 62 SM2:160:3105) of "Pile Heave and Redriving" (Aug 61 SM4:125:2905)
Dsc (Dec 62 ST6:319:3376) of "Seismic Forces on Engineering Structures" (Apr 62 ST2:81:3100)

MORGAN, JAMES M.
Dsc (Nov 62 SA6:119:3336) with Werner Stumm of "Mechanism of Coagulation in Water Treatment" (May 62 SA3:1:3117)

MORGAN, JAMES M., JR.
"Land Burial of Solid Packaged Radioactive Wastes," with John C. Geyer and David C. Costello (May 62 SA3:139:3147)

MORGAN, PAUL E.
"Analysis of Synthetic Unit-Graph Methods," with Stanley M. Johnson (Sept 62 HY5:199:3279)

MOULDER, EDWARD A.
See Edward D. Jenkins (June 62 IR2:21:3166)

MOYER, STANLEY
Dsc (Dec 62 PO4:177:3374) of "TVA's Paradise Steam Plant" (May 62 PO1:89:3137)

MULLARKEY, J. M.
See M. J. Hroncich (July 62 PO2:183: 3203)

MUNSE, WILLIAM H.
"Structural Steel for Buildings: Progress Report of the Administrative Committee of the Committee on Metals of the Structural Division" (Aug 62 ST4:19: 3215)

MUSS, DAVID L.
"Friction Losses in Lines with Service Connections" (Apr 60 HY4:35:2449)
Dsc: M. H. Diskin, Annabel L. Tong, M. B. McPherson and J. V. Radziul, K. M. Yao (Nov 60 HY9:157;159,161,167: 2665)
Clo: Jan 62 HY1:69:3044

MYERS, L. E.
See Herman Bouwer (Sept 62 IR3:1: 3259)

NAGAI, S.
"Stable Concrete Blocks on Rubble-Mound Breakwaters" (Aug 62 WW3:85: 3230)

NAGARAJ, C. N.
Dsc (Aug 62 SM4:197:3250) with A. Sridharan of "Static and Dynamic Behavior of Small Footings" (Dec 61 SM6:29:3020)

NAMYET, SAUL
See Kurt Eisemann (Dec 62 ST6:245: 3365)

NATHAN, N. D.
See William D. Finn (Feb 62 SM1:65: 3061)

NAUDASCHER, EDUARD
"Vibration of Gates During Overflow and Underflow" (Sept 61 HY5:63:2927)
Clo: Nov 62 HY6:171:3338

NEILL, CHARLES R.
"Hydraulic Roughness of Corrugated Pipes" (May 62 HY3:23:3111)
Dsc: T. Blench (Nov 62 HY6:205: 3338); H. A. Einstein (Nov 62 HY6:208: 3338); I. W. McCaig and J. F. Fulton Nov 62 HY6:209:3338)
Dsc (Mar 62 HY2:191:3087) of "Study of Scour Around Spur-Dikes" (Nov 61 HY6:23:2978)

NEMEROW, NELSON L.
"Physiological Aspects of Water Quality: Thirty-second Progress Report of the Committee on Sanitary Engineering Research" (Mar 62 SA2:1:3073)
"Survey of Sanitary Landfill Practices: Thirtieth Progress Report," Committee on Sanitary Engineering Research, Sanitary Engineering Division (July 61 SA4: 65:2874)
Dsc: Jean L. Vincenz (Jan 62 SA1: 43:3043); Desso T. Mitchell (Jan 62 SA1:44:3043); Theodore E. Winkler (Jan 62 SA1:46:3043); John R. Snell (Jan 62 SA1:47:3043)
Clo: May 62 SA3:169:3150

NEUMANN, FRANK
"Seismic Forces on Engineering Structures" (Apr 62 ST2:81:3100)
Dsc: A. A. Eremin (Oct 62 ST5:189: 3309); William W. Moore (Dec 62 ST6: 319:3376)

NEWSON, RICHARD J.
Dsc (Feb 62 ST1:197:3066) of "Philosophical Aspects of Structural Design" (June 61 ST5:1:2843)

NILSON, ARTHUR H.
"Folded Plate Structures of Light Gage Steel" (Oct 61 ST7:215:2970)
Dsc: George Pincus (Feb 62 ST1: 207:3066); Kaveti Seetharamulu (June 62 ST3:333:3179); Paul L. Koepsell and Fred Ritterhaus (Aug 62 ST4:217:3254)
"Shear Diaphragms of Light Gage Steel" (Nov 61 ST11:111:2650)
Dsc: J. Morley English (Oct 61 ST7: 247:2974)
Clo: June 62 ST3:279:3179
"Testing a Light Gage Steel Hyperbolic Paraboloid Shell" (Oct 62 ST5:51: 3300)

NORDLUND, R. L.
Dsc (Feb 62 SM1:77:3061) of "Pile Heave and Redriving" (Aug 61 125:2905)

NORTHROP, WILLIAM L.
"Use of Computers for Kansas River Flood Studies," with Clarence W. Timberman (July 61 HY4:113:2866)
Dsc: E. M. Laurenson (Jan 62 HY1: 145:3044); A. Preissmann and J. A. Cunge (Jan 62 HY1:147:3044)
Clo: July 62 HY4:275:3209

ODAR, FUAT
"Scale Factors for Simulation of Drifting Snow" (Apr 62 EM2:1:3093)

OGBURN, THOMAS J., III
Dsc (Aug 62 ST4:261:3254) of "Area Properties from Coordinates" (June 62 ST3:197:3167)

OGRAM, ALFRED
Dsc (May 62 PP1:45:3151) of "Atomic Power, A Failure in Engineering Responsibility" (Oct 61 PP2:43:2975)

O'HARA, G. J.
See R. O. Belsheim (Apr 62 EM2:157:3107)

OKUN, DANIEL A.
"Sanitary Engineering Education in a Changing World" (July 61 SA4:47:2862)
Dsc: K. J. Ives (Nov 61 SA6:151:3003); Gilbert H. Dunstan (Jan 62 SA1:41:3043)
Clo: May 62 SA3:167:3150

OLIVER, A. R.
Dsc (Oct 62 EM5:179:3307) of "Variational Considerations for Elastic Beams and Shells" (Feb 62 EM1:23:3057)

ONDRA, OTAKAR
"Moment-Distribution Constants from Cardboard Analogs" (Jan 61 ST1:73:2721)
Dsc: Paul H. Reimer, Jr., Miguel Angel Macias-Rendón (Oct 61 ST7:313, 314:2974)
Clo: Aug 62 ST4:205:3254

O'NEIL, HUGH M.
"Direct-Shear Test for Effective-Strength Parameters" (Aug 62 SM4:109:3232)

ORLOB, GERALD T.
Dsc (Jan 62 HY1:109:3044) of "Eddy Diffusion in Reservoirs and Pipelines" (May 61 HY3:151:2825)
See Peter A. Krenkel (Mar 62 SA2:53:3079)

OSAWA, YUTAKA
"Strength of Prestressed Concrete Pavements" (Oct 62 ST5:143:3308)

OSWALD, WILLIAM J.
"Light Conversion Efficiency of Algae Grown in Sewage" (July 60 SA4:71:2558)
Dsc: Edward R. Hermann (Jan 61 SA1:75:2720); Harold B. Gotaas (Mar 61 SA2:55:2783)
Clo: July 62 SA4:59:3206

OWEN, H. JAMES
Dsc (Sept 62 HY5:327:3290) of "Hydraulics of Single Span Arch Bridge Constrictions" (Mar 62 HY2:75:3076)

OZELL, A. M.
Dsc (June 62 ST3:335:3179) of "Elastomeric Pads as Bearing for Steel Beams" (Dec 61 ST8:73:3021)

PACKHAM, R. F.
Dsc (Nov 62 SA6:121:3336) of "Mechanism of Coagulation in Water Treatment" (May 62 SA3:1:3117)

PALMER, JOHN ELLIOTT GEORGE
Dsc (Feb 62 WW1:159:3068) of "Operative Energy Concept in Marine Fendering" (Aug 61 WW3:1:2875)

PALMER, ROBERT Q.
"Breakwaters in the Hawaiian Islands" (June 60 WW2:39:2507)
Dsc: Robert E. Hickson, J. E. Deignan (Nov 60 WW4:109,115:2659); Charles E. Lee, Robert L. Miller (Feb 61 WW1:175,177:2750); M. H. Marty and E. E. Chapus (May 61 WW2:145:2822)
Clo: Aug 62 WW3:161:3252
Dsc (Nov 62 WW4:135:3335) with Clarence S. Fujii of "Formulas for Design of Rubble-Mound Breakwaters" (May 62 WW2:11:3114)

PANUZIO, FRANK L.
See Samuel Gofseyeff (Feb 62 WW1:1:3046)

PAPADOPULOS, ISTAVROS S.
See Mahdi S. Hantush (Sept 62 HY5:221:3284)

PARKER, FRANK L.
"Eddy Diffusion in Reservoirs" (May 61 HY3:151:2825)
Dsc: G. T. Orlob (Jan 62 HY1:109:3044)

PARKIN, ALAN K.
See D. Hugh Trollope (Oct 62 SM5:41:3306)

PARKIN, BLAINE R.
"Impact Waves in Sand: Theory Compared with Experiments on Sand Columns" (June 61 SM3:1:2828)
Dsc: H. G. Hopkins (Dec 61 SM6:69:3032); Robert E. Fulton and A. J. Hendron, Jr. (Dec 61 SM6:69:3032); E. T. Selig and E. Vey (Dec 61 SM6:73:3032); Robert V. Whitman (Feb 62 SM1:49:3061)
Clo: June 62 SM3:205:3171

PARMAKIAN, JOHN
"Noise Reduction Theory Applied to a Large Power Plant" (May 62 PO1:19:3123)
Dsc: Harlan F. Harris (Dec 62 PO4:165:3374)

PATEL, K. R.
Dsc (Aug 62 ST4:239:3254) of "Influence Lines for Fixed Symmetrical Arches by Relaxation Method" (Feb 62 ST1:13:3049)

PAYNTER, HENRY M.
Dsc (Dec 62 PO4:185:3374) of "Design Studies for Chute-Des-Passes Surge-Tank System" (May 62 PO1:121:3142)

PECK, R. B.
Dsc (Feb 62 WW1:141:3068) with M. T. Davisson of "Design and Stability Considerations for Unique Pier" (May 61 WW2:1:2807)
Dsc (May 62 WW2:141:3153) with M. T. Davisson of "Design and Stability Considerations for Unique Pier" (May 61 WW2:1:2807)

PECKWORTH, HOWARD F.
Dsc (May 62 SA3:174:3150) of "Effects of Hydrogen Sulfide on Concrete Structures" (Sept 61 SA5:1:2921)

PEI, MING L.
"Vibration of Shear Buildings by Flexibility Method" (Feb 61 EM1:13:2728)
Dsc: Shan S. Kuo (Aug 61 EM4:143:2916)
Clo: Aug 62 EM4:121:3244

PENDSE, Y. D.
See M. G. Hiranandani (Aug 62 WW3:139:3249)

PENNER, FRANK
Dsc (Dec 62 SM6:280:3378) of "Load-Carrying Capacity of Concrete Pavements" (June 62 SM3:89:3174)

PERDIKIS, HARRY S.
"Behavior of Beach Fills in New England" (Feb 61 WW1:75:2744)
Dsc: A. C. Rayner (Aug 61 WW3:155:2914)
Clo: Feb 62 WW1:139:3068

PERKINS, PHILIP H.
Dsc (May 62 SA3:173:3150) of "Effects of Hydrogen Sulfide on Concrete Structures" (Sept 61 SA5:1:2921)

PETERSON, DEAN F., JR.
"Flume Studies of Flow in Steep, Rough Channels," with P. K. Mohanty (Nov 60 HY9:55:2653)
Dsc: F. V. A. Engel, N. Rajaratnam, Herman J. Koloseus (July 61 HY4:245, 247,250:2872); A. Thiruvengadam (Jan 62 HY1:83:3044)
Clo: May 62 HY3:199:3144
Dsc (Jan 62 HY1:106:3044) of "Roughness Spacing in Rigid Open Channels" (May 61 HY3:121:2823)

PETERSEN, HAROLD J.
Dsc (Dec 62 PO4:171:3374) of "TVA's Paradise Steam Plant" (May 62 PO1:89:3137)

PETERSEN, WARREN O.
"Design of EHV Steel Tower Transmission Lines" (May 62 PO1:39:3130)
Dsc: Joseph R. Arena (Dec 62 PO4:169:3374)

PETERSON, H. V.
Dsc (May 62 HY3:271:3144) of "Total Sediment Transport in the Lower Colorado River" (Nov 61 HY6:139:2990)
Dsc (Sept 62 HY5:339:3290) of "Transmission Losses in Ephermeral Stream Beds" (May 62 HY3:59:3116)

PETERSON, OTTO W.
Dsc (June 62 IR2:115:3170) of "Friant-San Joaquin River Litigation" (Dec 61 IR4:27:3007)

PETTIS, C. R.
Dsc (Sept 62 IR3:51:3286) of "Evaporation from Pyramid and Winnemucca Lakes, Nevada" (Mar 62 IR1:1:3083)

PEYRONNIN, CHESTER A., JR.
"Erosion of Isles Dernieres and Timbalier Islands" (Feb 62 WW1:57:3048)

PICKERING, CHARLES A., JR.
See Kenneth A. Linell (Aug 62 SM4:141:3250)

PIERSON, W. J., JR.
Dsc (Feb 62 WW1:155:3068) of "Deep Water Wave Generations by Moving Wind Systems" (May 61 WW2:133:2821)

PILLSBURY, ARTHUR F.
Dsc (June 62 IR2:108:3170) of "Tolerance of Plants to Salinity" (Dec 61 IR4:1:3005)

PINCUS, GEORGE
Dsc (Feb 62 ST1:207:3066) of "Folded Plate Structures of Light Gage Steel" (Oct 61 ST7:215:2970)

PINKERTON, IVOR L.
Dsc (May 62 PO1:185:3149) of "Current Developments in Hydroelectric Plant Design" (Nov 61 PO3:55:2995)

PODOLNY, WALTER, JR.
See Charles C. Zollman (Jan 62 CO1: 25:3037)

POLATTY, JAMES M.
"Symposium on Grouting: Investigation of Sand-Cement Grouts" (Apr 61 SM2:83:2795)
Dsc: Judson P. Elston (Aug 61 SM4: 205:2917)
Clo: June 62 SM3:197:3171

POWELL, RALPH W.
Dsc (Jan 62 HY1:102:3044) of "Roughness Spacing in Rigid Open Channels" (May 61 HY3:121:2823)

PRASZKER, MICHAEL
Dsc (Dec 62 SM6:263:3378) of "Prediction of Swelling Potential for Compacted Clays" (June 62 SM3:53:3169)

PREISSMANN, A.
Dsc (Jan 62 HY1:147:3044) with J. A. Cunge of "Use of Computers for Kansas River Flood Studies" (July 61 HY4:113: 2866)

PRIEST, C. W.
Dsc (Dec 62 PO4:172:3374) of "TVA's Paradise Steam Plant" (May 62 PO1: 89:3137)

PRIEST, MELVILLE S.
"Shallow-Water Wave Action on a Vertical Cylinder" (May 62 WW2:1: 3112)

PRITCHETT, HAROLD D.
See Charles E. Behlke (Feb 62 WW1: 166:3068)

PRUGH, BYRON J.
"Dewatering Carbonate Soils of the Pacific," with Dumond F. Chalkers (Sept 62 CO2:41:3275)

PRUS-CHACINSKI, T. M.
Dsc (July 62 HY4:323:3209) of "Stability of Alluvial Channels" (Nov 61 HY6:109:2984)

RAJARATNAM, N.
Dsc (Jan 62 HY1:119:3044) of "End Depth at a Drop in Trapezoidal Channels" (July 61 HY4:11:2851)
Dsc (Nov 62 HY6:214:3338) of "Critical Depth in Trapezoidal Channels" (May 62 HY3:69:3122)
Dsc (Dec 62 IR4:55:3377) of "Critical Flow in Terms of Hydraulic Equivalents" (June 62 IR2:1:3155)

RAMASESHAN, S.
Dsc (June 62 IR2:97:3170) of "Aqueduct Capacity Under an Optimum Benefit Policy" (Sept 61 IR3:1:2923)

RANGANATHAM, B. V.
Dsc (Feb 62 SM1:61:3061) of "Cohesion After Non-Hydrostatic Consolidation" (Aug 61 SM4:39:2881)
Dsc (Oct 62 SM5:63:3306) of "Friction and Cohesion of Saturated Clays" (June 62 SM3:1:3158)

RAO, S. KOTESWARA
"Simplified Design of a Highway Transition Spiral" (Sept 62 HW2:1:3277)

RAPHAEL, JEROME M.
"Dead-Load Stress in Model Dams by Method of Integration" (Aug 61 ST6: 31:2903)
Dsc: O. C. Zienkiewicz (Feb 62 ST1: 203:3066); Hirotsugu Kimishima (Apr 62 ST2:139:3108); Nicholas J. Beaujoint (June 62 ST3:317:3179)
Clo: Dec 62 ST6:283:3376
"Prediction of Temperature in Rivers and Reservoirs" (July 62 PO2:157:3200)

RAWLINGS, B.
"Energy Relationships in Plastic Steel Structures" (Aug 62 ST4:159:3242)

REEVES, H. W.
"Marine Oil Terminal for Rio de Janeiro, Brazil" (Feb 61 WW1:47:2733)
Dsc: Glenn B. Woodruff, Richard S. Winkler and Joseph H. Finger (Aug 61 WW3:147,148,152:2914); P. Leimdorfer (Nov 61 WW4:101:3004)
Clo: Nov 62 WW4:85:3335

REICH, BRIAN M.
Dsc (July 62 HY4:343:3209) of "Hydrologic Design of Culverts" (Mar 62 HY2:39:3071)

REISS, MAX
Dsc (Aug 62 ST4:233:3254) of "Experimental and Analytical Study of a Folded Plate" (Dec 61 ST8:139:3023)
See David Yitzhaki (Oct 62 ST5:107: 3303)

REISSNER, ERIC
"Variational Considerations for Elastic Beams and Shells" (Feb 62 EM1:23:3057)
Dsc: A. R. Oliver (Oct 62 EM5:179:3307)

REMSON, IRWIN
See S. S. McNeary (Nov 62 HY6:115:3325)

RENARD, K. G.
See R. V. Keppel (May 62 HY3:59:3116)

RENTON, JOHN D.
"Stability of Space Frames by Computer Analysis" (Aug 62 ST4:81:3237)

REPLOGLE, J. A.
Dsc (Mar 62 HY2:161:3087) of "End Depth at a Drop in Trapezoidal Channels" (July 61 HY4:11:2851)

RETI, ANDREW
Dsc (June 62 SM3:215:3171) of "Simplified Design of Combined Footings" (Oct 61 SM5:19:2959)

REVELLE, J. EDGAR
"Penstocks and Scroll Cases for Niagara Power Project," with John N. Pirok (Nov 61 PO3:1:2979)
Dsc: G. R. Latham (May 62 PO1:181:3149); F. L. Lawton (July 62 PO2:255:3208)
Clo: Dec 62 PO4:157:3374

REYES, WILFREDO L.
"Aerobic Digestion of Night Soil," with Cornelius W. Kruse (Nov 62 SA6:15:3323)

REYNOLDS, JAMES
"Site Layout for Coal-Fired Steam Power Plants" (Sept 62 PO3:89:3271)

RHEINGANS, WILLIAM J.
"Use of T-1 Steel for Oahe Spiral Cases" (Dec 62 PO4:1:3339)

RICE, PAUL F.
Dsc (June 62 ST3:337:3179) of "Reinforced Masonry Design and Practice, Progress Report-Task Committee on Reinforced Masonry Design and Practice-Committee on Masonry and Reinforced Concrete" (Dec 61 ST8:87:3022)

RICE, R. C.
See Herman Bouwer (Sept 62 IR3:1:3259)

RICHARDSON, E. V.
See D. B. Simons (Sept 62 HY5:57:3263)

RICHART, F. E., JR.
"Effect of Local Loss of Support on Foundation Design," with P. Zia (Feb 62 SM1:1:3059)
Dsc: I-t'an Yu (June 62 SM3:245:3171)
Clo: Dec 62 SM6:243:3378

RIPKEN, J. F.
Dsc (Nov 62 WW4:137:3335) of "Hovering Breakwater" (May 62 WW2:23:3115)

RISSONE, R. F.
Dsc (Oct 62 EM5:191:3307) with J. J. Williams of "Variations of Linearly Tapered Cantilever Beams" (Apr 62 EM2:95:3101)

RITTERHAUS, FRED
See Paul L. Koepsell (Aug 62 ST4:217:3254)

ROBERTS, P. W.
Dsc (Aug 62 WW3:189:3252) with Virgil Blancato of "Berthing and Mooring Forces" (Feb 62 WW1:71:3050)

ROBERTSON, R. G.
Dsc (June 62 ST3:339:3179) with S. C. B. Eriksson of "Experimental and Analytical Study of a Folded Plate" (Dec 61 ST8:139:3023)

ROBINSON, A. R.
"Vortex Tube Sand Trap" (Dec 61 IR4:1:2669)
Dsc: Mushtag Ahmad (Dec 61 IR4:67:3031)
Clo: June 62 IR2:85:3170
Dsc (June 62 IR2:112:3170) with Henry Liu of "Unification of Parshall Flume Data" (Dec 61 IR4:13:3006)

ROBINSON, A. S.
Dsc (Jan 62 CO1:67:3042) of "Soil Freezing to Reconstruct a Railway Tunnel" (Nov 61 CO3:1:2639)

ROBINSON, I. R.
Dsc (Apr 62 SM2:159:3105) with L. S. McLennan of "Pile Heave and Redriving" (Aug 61 SM4:125:2905)

ROBINSON, THOMAS W.
Dsc (Mar 62 IR1:39:3085) of "Consumptive Use and Water Waste by Phreatophytes" (Sept 61 IR3:37:2929)

ROCKWOOD, DAVID M.
"Forecasting River Runoff by Coastal Flow Index," with Carlton E. Jencks (Mar 61 HY2:121:2780)
Dsc: H. C. Riggs (July 61 HY4:261:2872); Kenneth W. Wise (Sept 61 HY5:225:2920)
Clo: Mar 62 HY2:159:3087

ROSENBLUETH, EMILIO
"Distribution of Structural Response to Earthquakes," with Jorge I. Bustamante (June 62 EM3:75:3177)
Dsc: A. A. Eremin (Dec 62 EM6:155:3375)

ROSENHAUPT, SAKY
"Experimental Study of Masonry Walls on Beams" (June 62 ST3:137:3163)
Dsc: Richard R. Schindler (Oct 62 ST5:193:3309); A. W. Hendry and S. Saad (Dec 62 ST6:325:3376)

ROSNER, NICHOLAS L.
Dsc (Dec 62 IR4:53:3377) of "Evaporation from Pyramid and Winnemucca Lakes, Nevada" (Mar 62 IR1:1:3083)

ROUSE, HUNTER
Dsc (Mar 62 HY2:187:3087) of "Calculation of Potential Flows with Free Streamlines" (Nov 61 HY6:17:2977)

ROWE, P. W.
Dsc (Dec 62 SM6:288:3378) of "Bulkhead Test Program at Port of Toledo, Ohio" (June 62 SM3:151:3176)

ROWE, R. ROBINSON
"Highway Pipeline Crossing Practice: Progress Report Committee on Pipeline Crossings" (Sept 61 HW3:11:2947)
Dsc: T. William Lambe (May 62 HW1:77:3145)
Clo: May 62 HW1:81:3145
Dsc (Sept 62 HY5:322:3290) of "Hydrologic Design of Culverts" (Mar 62 HY2:39:3071)

RUBINSTEIN, MOSHE F.
"Effect of Joint Rotation on Dynamics of Structures," with Walter C. Hurty (Dec 61 EM6:135:3028)
Dsc: E. F. Masur (Feb 62 EM1:83:3060); Fernando Venancio Filho (Apr 62 EM2:161:3107); Z. L. Moh, John E. Goldberg, and J. L. Bogdanoff (June 62 EM3:173:3173); L. J. Meszaros (June 62 EM3:175:3173); Jorge I. Bustamante (Aug 62 EM4:133:3244)
Clo: Dec 62 EM6:147:3375

RUDDY, JOHN M.
"Metal Work Design of High Intensity Radiation Cells" (Aug 62 ST4:23:3219)

RUMER, R. R., JR.
See Donald R. F. Harleman (Nov 62 HY6:199:3338)

RUMER, RALPH R.
"Longitudinal Dispersion in Steady and Unsteady Flow" (July 62 HY4:147:3202)

RUTKA, A.
See V. Milligan (Aug 62 SM4:31:3224)

RUTLEDGE, DWIGHT H.
See Clyde D. Gessel (Nov 62 SU1:17:3318)

RYDER, FREDERICK L.
Dsc (Oct 62 ST5:191:3309) of "Passive Analog Computers for Structural Analysis" (June 62 ST3:103:3162)

SAAD, S.
See A. W. Hendry (Dec 62 ST6:325:3376)

SABLJAK, RAOUL
Dsc (Dec 62 PO4:193:3374) of "Optimum Penstock Diameter in Hydroelectric Plants" (June 62 PO2:9:3186)

SACKMAN, J. L.
"Steady Creep of a Nonhomogeneous Plate" (Oct 62 EM5:1:3293)

SALMON, CHARLES G.
"Analysis of Triangular Bracket-Type Plates" (Dec 62 EM6:41:3363)

SALZMAN, MILTON G.
"Bibliography on Civil Engineering Features of Thermal Plants: Progress Report of the Task Committee on Compilation of Bibliography on Civil Engineering Features of Thermal Plants of the Committee on Power Project Planning and Design of the Power Division" (May 62 PO1:1:3118)
"Symposium on Pumped Storage: Site Investigations of Pumped Storage Facilities" (July 62 PO2:233:3205)

SAMSON, CHARLES H., JR.
Dsc (Dec 62 ST6:301:3376) of "Analysis of Structures by System Theory" (Apr 62 ST2:1:3088)

SANDOVER, J. A.
"Electrical Determination of the Moisture in Sand" (Sept 62 CO2:25:3257)

SANKS, R. L.
Dsc (June 62 ST3:284:3179) of "Stress Analysis of Rigid Frame Bridges with Inclined Legs" (Dec 60 ST12:1:2668)

SANTRY, I. W., JR.
"Manning Roughness Factors for Concrete Sewer Pipe" (May 62 SA3:115:3140)

SARPKAYA, TURGUT
"Unsteady Flow of Fluids in Closed Systems" (June 62 EM3:1:3154)
Dsc: Victor L. Streeter (Oct 62 EM5:197:3307)

SAUER, S. P.
See W. H. Espey, Jr. (Nov 62 HY6:191:3338)

SAUL, GEORGE W.
"Construction Planning of Mammoth Pool Project" (Jan 62 CO1:13:3034)

SAURIN, B. F.
Dsc (Nov 62 WW4:133:3335) of "Berthing and Mooring Forces" (Feb 62 WW1:71:3050)

SAVAGE, RUDOLPH P.
"Laboratory Determination of Littoral-Transport Rates" (May 62 WW2:69:3128)
Dsc: Thorndike Saville, Jr. (Nov 62 WW4:141:3335); Madhav Monohar (Nov 62 WW4:144:3335)

SAVILLE, THORNDIKE, JR.
"Freeboard Allowances for Waves in Inland Reservoirs," with Elmo W. McClendon and Albert L. Cochran (May 62 WW2:93:3138)
Dsc (Nov 62 WW4:141:3335) of "Laboratory Determination of Littoral-Transport Rates" (May 62 WW2:69:3128)

SAVILLE, W. G. S.
See A. G. Villepique (Sept 62 PO3:27:3267)

SAWYER, HERBERT A., JR.
"Post-Elastic Behavior of Wide-Flange Steel Beams" (Dec 61 ST8:43:3016)
Dsc: A. Ferrara and T. V. Galambos (Aug 62 ST4:223:3254)
Clo: Dec 62 ST6:287:3376

SAXTON, K. E.
See A. L. Sharp (Sept 62 HY5:121:3266)

SAYRE, WILLIAM W.
"Roughness Spacing in Rigid Open Channels," with Maurice L. Albertson (May 61 HY3:121:2823)
Dsc: P. F. Biery and J. W. Delleur (Sept 61 HY5:231:2920); Jamil Malaika (Nov 61 HY6:249:3000); T. Blench (Nov 61 HY6:251:3000); Donald R. F. Harleman and Ralph R. Rummer, Jr. (Nov 61 HY6:257:3000); Walter Rand (Nov 61 HY6:262:3000); Jacob W. Davidian and Rolland W. Carter (Nov 61 HY6:267:3000); John A. Roberson (Nov 61 HY6:269:3000); Herman J. Koloseus (Jan 62 HY1:97:3044); Ralph W. Powell (Jan 62 HY1:102:3044); Dean F. Peterson, Jr. (Jan 62 HY1:106:3044)
Clo: July 62 HY4:249:3209

SCHAD, THEODORE M.
"Perspective on National Water Resources Planning" (July 62 HY4:17:3188)
Dsc: Arnold Kent (Sept 62 HY5:345:3290); William P. Jones, Jr. (Nov 62 HY6:233:3338)

SCHINDLER, RICHARD R.
Dsc (Oct 62 ST5:193:3309) of "Experimental Study of Masonry Walls on Beams" (June 62 ST3:137:3163)

SCHMERTMANN, JOHN H.
"Cohesion After Non-Hydrostatic Consolidation," with John R. Hall, Jr. (Aug 61 SM4:39:2881)
Dsc: B. V. Ranganatham (Feb 62 SM1:61:3061); Werner E. Schmid (Apr 62 SM2:153:3105); Carl B. Crawford (Apr 62 SM2:156:3105)
Clo: Aug 62 SM4:163:3250
"Comparisons of One and Two-Specimen CFS Tests" (Dec 62 SM6:169:3372)

SCHMID, WERNER E.
Dsc (Apr 62 SM2:153:3105) of "Cohesion After Non-Hydrostatic Consolidation" (Aug 61 SM4:39:2881)

SCHMIT, LUCIEN A., JR.
"Synthesis of Material and Configuration Selection," with Thomas P. Kicher (June 62 ST3:79:3161)

SCHULTZ, ERNEST R.
"Design Features of Glen Canyon Dam" (July 62 PO2:113:3197)

SCHULZ, W. G.
"Oroville Dam and Appurtenant Features," with D. P. Thayer and J. J. Doody (July 61 PO2:29:2852)
Dsc: Erik Rettig (Nov 61 PO3:119:2999); Adolph J. Ackerman (Dec 62 PO4:149:3374)
Clo: Dec 62 PO4:153:3374

SCHWAIGHOFER, JOSEPH
"Extended Frozen Stress Method" (Dec 62 EM6:1:3351)

SCORDELIS, A. C.
"Experimental and Analytical Study of a Folded Plate," with E. L. Croy and I. R. Stubbs (Dec 61 ST8:139:3023)
Dsc: R. G. Robertson and S. C. B. Eriksson (June 62 ST3:339:3179); Albert Knott (June 62 ST3:340:3179); M. Reiss (Aug 62 ST4:233:3254)
Clo: Oct 62 ST5:181:3309
Add: Dec 62 ST6:291:3376

SCOTT, RONALD F.
"New Method of Consolidation-Coefficient Evaluation" (Feb 61 SM1:29:2746)
Dsc: K. Y. Lo, M. Arnold (June 61 SM3:127,128:2839); William Daniel Finn, B. V. Ranganatham and I.da Silveira (Aug 61 SM4:187:2917)
Clo: Feb 62 SM1:37:3061

SEARS, F. D.
See A. E. Bruington (July 62 HY4:333:3209)

SEED, H. BOLTON
"Prediction of Swelling Potential for Compacted Clays," with Richard J. Woodward, Jr., and Raymond Lundgren (June 62 SM3:53:3169)
Dsc: W. G. Holtz and H. J. Gibbs (Aug 62 SM4:207:3250); Michael Praszker (Dec 62 SM6:263:3378); E. Zolkov (Dec 62 SM6:266:3378); M. C. Li (Dec 62 SM6:267:3378); W. D. Liam Finn (Dec 62 SM6:268:3378)

SEETHARAMULU, KAVETI
Dsc (June 62 ST3:333:3179) of "Folded Plate Structures of Light Gage Steel" (Oct 61 ST7:215:2970)

SEIDEL, H. F.
Dsc (Sept 62 SA5:55:3288) with E. R. Baumann of "Advances in Primary Treatment: Progress Report of the Subcommittee on Primary Treatment of the Committee on Sewerage and Sewage Treatment of the Sanitary Engineering Division" (Mar 62 SA2:105:3082)

SELBERG, ARNE
Dsc (Aug 62 ST4:195:3254) of "Corrected Deflection Theory of Suspension Bridges" (Nov 60 ST11:25:2638)

SELIG, E. T.
"Static and Dynamic Behavior of Small Footings," with K. E. McKee (Dec 61 SM6:29:3020)
Dsc: W. J. Larnach (June 62 SM3:241:3171); C. N. Nagaraj and A. Sridharan (Aug 62 SM4:197:3250); W. D. Liam Finn (Aug 62 SM4:198:3250); R. W. Cunny and R. C. Sloan (Aug 62 SM4:200:3250)
Clo: Dec 62 SM6:239:3378

SENN, CHARLES L.
"Coliform Organisms as an Index of Water Safety: Progress Report, Committee on Public Health Activities" (Nov 61 SA6:41:2986)
Dsc: Max Suter (Mar 62 SA2:123:3086)

SENOUR, CHARLES
"Economics of River Bank Stabilization" (May 61 WW2:17:2809)
Dsc: Howard J. Mullaney (Nov 61 WW4:125:3004)
Clo: May 62 WW2:155:3153

SEVIAN, VAHÉ J.
Dsc (Dec 62 IR4:69:3377) of "Utilization of Water and Irrigation in Israel" (June 62 IR2:55:3178)

SHARP, A. L.
"Transmission Losses in Natural Stream Valleys," with K. E. Saxton (Sept 62 HY5:121:3266)

SHEN, HSIEH WEN
"Development of Bed Roughness in Alluvial Channels" (May 62 HY3:45:3113)
See R. L. Wiegel (May 62 WW2:23:3115)

SHEPPARD, JOHN R.
"Total Sediment Transport in the Lower Colorado River" (Nov 61 HY6:139:2990)
Dsc: H. V. Peterson (May 62 HY3:271:3144)
Clo: Sept 62 HY5:283:3290

SHIEH, W. Y. J.
Dsc (Aug 62 ST4:247:3254) of "Analysis of Circular Arches on Elastic Abutments" (Feb 62 ST1:75:3054)

SHIH, CORNELIUS C. S.
Dsc (Jan 62 HY1:116:3044) of "Water Surface Profiles in Irregular Natural Streams" (July 61 HY4:1:2849)
Dsc (July 62 HY4:314:3209) of "General Solution for Open Channel Profiles" (Nov 61 HY6:89:2983)

SHOEMAKER, LOREN A.
See David J. Lewis (May 62 HY3:113:3139)

SHUVAL, HILLEL I.
"Economics of Composting Municipal Refuse" (July 62 SA4:47:3201)

SIBLEY, EARL A.
See Stanley D. Wilson (Dec 62 SM6:1:3346)

SIEV, AVINADA
"Analysis of Free Straight Multiflight Staircases" (June 62 ST3:207:3168)
Dsc: A. C. Liebenberg (Dec 62 ST6:327:3376)

SIGURDSSON, GUNNAR
"Wave Forces on Breakwater Capstones" (Aug 62 WW3:27:3218)

SIMMONDS, S. H.
Dsc (June 62 EM3:161:3173) of "Equations for Plate-Beam Systems in Transverse Bending" (Dec 61 EM6:1:3009)

SIMONS, DARYL B.
"Depth-Discharge Relations in Alluvial Channels," with E. V. Richardson and W. L. Haushild (Sept 62 HY5:57:3263)
"Forms of Roughness in Alluvial Channels," with E. V. Richardson (May 61 HY3:87:2816)
Dsc: C. F. Nordin, Jr. and J. K. Culbertson (Nov 61 HY6:233:3000); Alan V. Jopling (Nov 61 HY6:238:3000); Vito A. Vanoni and John F. Kennedy (Nov 61 HY6:241:3000)
Clo: July 62 HY4:237:3209
"Resistance to Flow in Alluvial Channels," with E. V. Richardson (May 60 HY5:73:2485)
Dsc: H. A. Einstein, T. Blench; Emmett M. Laursen and Gerald A. Zernial; Dasel E. Hallmark; Thomas Massock, Jr. and W. B. Langbein; R. Hugh Taylor, Jr. and Norman H. Brooks; Lucien M. Brush, Jr. (Jan 61 HY1:219,221,228,234,237,246,256:2724)
Clo: May 62 HY3:185:3144
"Uniform Water Conveyance Channels in Alluvial Material," with Maurice L. Albertson (May 60 HY5:33:2484)
Dsc: Gerald Lacey, Peter Ackers, G. Kalkanis, John F. Kennedy, T. Blench, Claude Inglis (Jan 61 HY1:187,194,198,203,205,212:2724) Marcel Bitoun, Monir M. Kansoh (Mar 61 HY2:165,171:2781); Serge Leliavsky (July 62 HY4:209:3209)
Corr: May 61 HY3:207:2827
Clo: July 62 HY4:213:3209
Dsc (July 62 HY4:317:3209) of "Stability of Alluvial Channels" (Nov 61 HY6:109:2984)

SIMPSON, LEROY
See R. Dixon Speas (Aug 62 AT1:63:3240)

SKALAK, RICHARD
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SLOAN, R. C.
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SMITH, BRYAN STAFFORD
"Lateral Stiffness of Infilled Frames" (Dec 62 ST6:183:3355)

SMITH, C. D.
"Brink Depth for a Circular Channel" (Nov 62 HY6:125:3327)

SMITH, T. G.
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SMITH, WILBUR S.
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Dsc: Robert L. Morris, James S. Burch (Dec 60 HW4:55,56:2694); Frank W. Herring (Mar 61 HW1:57:2782)
Clo: Sept 62 HW2:79:3289
"Urban Transportation Tasks of the Future" (May 62 HW1:21:3120)

SMITH, WINCHELL
"Optical Current Meter," with Glen F. Bailey (Sept 62 HY5:13:3258)

SNELL, JOHN R.
Dsc (Jan 62 SA1:47:3043) of "Survey of Sanitary Landfill Practices: Thirtieth Progress Report" (July 61 SA4:65:2874)

SNOW, BAYARD F.
Dsc (Sept 62 SA5:53:3288) of "Legal Considerations in Water-Resources Planning" (Mar 62 SA2:85:3080)

SNYDER, WILLARD M.
"Continuous Parabolic Interpolation" (July 61 HY4:99:2865)
Dsc: M. D. Lester (Nov 61 HY6:273:3000); Max Kurtz (Jan 62 HY1:139:3044)
Clo: July 62 HY4:265:3209

SODERMAN, L. G.
See V. Milligan (Aug 62 SM4:31:3224)

SOOKY, ATILLA A.
Dsc (Sept 62 HY5:330:3290) of "Hydraulics of Single Span Arch Bridge Constrictions" (Mar 62 HY2:75:3076)

SPEAS, R. DIXON
"Forecast of Air Transport for 1980," with Leroy Simpson (Aug 62 AT1:63:3240)

SPEEDIE, MILTON G.
Dsc (Apr 62 SM2:151:3105) of "Uncertainties in Earth Dam Design" (June 61 SM3:33:2832)

SPENCE, R. A.
"Shear Characteristics of a Marine Clay," with T. E. Glynn (Aug 62 SM4:85:3228)

SPERO, MICHAEL
Dsc (Dec 62 PO4:189:3374) of "Evaluation of Federal Hydroelectric Power Projects" (May 62 PO1:153:3148)

SPILLERS, W. R.
"Network Analogy for the Truss Problem" (Dec 62 EM6:33:3357)

SRIDHARAN, A.
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STALL, JOHN B.
"Reservoir Mass Analysis by a Low-Flow Series" (Sept 62 SA5:21:3283)

STAMP, JOSE L.
Dsc (Mar 62 SA2:121:3086) of "Effects of Hydrogen Sulfide on Concrete Structures" (Sept 61 SA5:1:2921)

STAVSKY, YEHUDA
"Bending and Stretching of Laminated Aeolotropic Plates" (Dec 61 EM6:31:3017)
Clo: Aug 62 EM4:129:3244

STEARNS, S. RUSSELL
"Nomenclature for Soil Mechanics: Progress Report of the Committee on Definitions and Standards of the Soil Mechanics and Foundations Division" (June 62 SM3:185:3183)

STEIN, RICHARD A.
Dsc (May 62 HY3:217:3144) of "Dual Channel Stream Monitor" (Nov 61 HY6:1:2976)

STEVENS, LEONARD KELMAN
"Design of Frames with Deformation the Prime Criterion" (Feb 62 ST1:55:3053)
Dsc: Phillip L. Gould (Aug 62 ST4:243:3254); J. B. Martin (Aug 62 ST4:244:3254)

STEVENSON, J. C.
Dsc (Mar 62 HY2:167:3087) of "Manifold Stilling Basin" (July 61 HY4:55:2863)

STONE, RALPH
Dsc (July 62 SA4:71:3206) of "Advances in Sludge Disposal in the Period from October 1, 1954, to February 1, 1960: Progress Report of the Subcommittee on Sludge Disposal of the Committee on Sewerage and Sewage Treatment of the Sanitary Engineering Division" (Mar 62 SA2:13:3075)
Dsc (Nov 62 SA6:123:3336) of "Economics of Composting Municipal Refuse" (July 62 SA4:47:3201)

STONEX, KENNETH A.
"Correlation of Future Vehicle and Highway Design" (Sept 62 HW2:47:3281)

STOUT, G. E.
"Studies of Severe Rainstorms in Illinois," with F. A. Huff (July 62 HY4:129:3196)

STOUT, NORMAN N.
Dsc (Sept 62 CO2:105:3287) of "Tital ICBM Hardened Facilities" (Jan 62 CO1:41:3041)

STREETER, VICTOR L.
"Water-Hammer Analysis Including Fluid Friction," with Chintu Lai (May 62 HY3:79:3135)
Dsc: Franklin DeFazio (Nov 62 HY6:221:3338); I. W. McCaig and F. H. Jonker (Nov 62 HY6:222:3338); B. A. Sutton (Nov 62 HY6:222:3338)

STREETER, VICTOR L. Continued
Dsc (Oct 62 EM5:197:3307) of "Unsteady Flow of Fluids in Closed Systems" (June 62 EM3:1:3154)

STRELKOFF, THEODORE S.
Dsc (July 62 HY4:296:3209) of "Calculation of Potential Flows with Free Streamlines" (Nov 61 HY6:17:2977)

STRUB, R. A.
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STUART, W. HAROLD
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Dsc: Dana D. Leslie and John M. Bird (Aug 62 SM4:185:3250); Robert F. Legget (Aug 62 SM4:189:3250); Thomas F. Thompson (Aug 62 SM4:190:3250); R. H. Grice (Aug 62 SM4:192:3250)
Clo: Dec 62 SM6:237:3378

STUMM, WERNER
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STÜSSI, F.
"Theory and Test Results on the Fatigue of Metals" (Oct 59 ST8:65:2222)
Dsc: W. H. Munse (April 60 ST4:119:2458)
Clo: Aug 62 ST4:191:3254

SU, HSUAN LOH
"Philosophical Aspects of Structural Design" (June 61 ST5:1:2843)
Dsc: A. H. Metcalfe (Dec 61 ST8:249:3029); Richard J. Newson (Feb 62 ST1:197:3066)
Clo: Aug 62 ST4:209:3254

SUTER, MAX
Dsc (Mar 62 SA2:123:3086) of "Coliform Organisms as an Index of Water Safety: Progress Report, Committee on Public Health Activities" (Nov 61 SA6:41:2986)
Dsc (Mar 62 IR1:45:3085) of "Factors Affecting the Safe Yield of Ground-Water Basins" (Sept 61 IR3:63:2948)
Dsc (May 62 SA3:180:3150) of "Reclaiming Hyperion Effluent" (Nov 61 SA6:1:2985)

SUTKO, ADOLPH A.
Dsc (Jan 62 HY1:159:3044) of "Free Streamline Theory for Segmental Jet Deflectors" (Sept 61 HY5:135:2935)
Dsc (Dec 62 PO4:183:3374) of "Design Studies for Chute-des-Passes Surge-Tank System" (May 62 PO1:121:3142)

SUTTON, B. A.
Dsc (Nov 62 HY6:222:3338) of "Water-Hammer Analysis Including Fluid Friction" (May 62 HY3:79:3135)

SVEE, ROALD
"Formulas for Design of Rubble-Mound Breakwaters" (May 62 WW2:11:3114)
Dsc: Robert Q. Palmer and Clarence S. Fujii (Nov 62 WW4:135:3335)

SWAB, BERNAL H.
"Effects of Hydrogen Sulfide on Concrete Structures" (Sept 61 SA5:1:2921)
Dsc: Jose L. Stamp (Mar 62 SA2:121:3086); Philip H. Perkins (May 62 SA3:173:3150); Howard F. Peckworth (May 62 SA3:174:3150)

SWAMINATHAN, K. V.
"Analysis of Circular Arches on Elastic Abutments" (Feb 62 ST1:75:3054)
Dsc: W. Y. J. Shieh (Aug 62 ST4:247:3254)

SWAMY, N. V. CHANDRASEKHARA
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SWARZENSKI, WOLFGANG V.
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SWIGER, W. F.
"Symposium on Grouting: Construction of Rocky Reach Grouted Cutoff" (Apr 61 SM2:95:2796)
Dsc: Judson P. Elston (Dec 61 SM6:61:3032); E. S. Bell (Dec 61 SM6:62:3032); John E. Wagner (Dec 61 SM6:62:3032)
Clo: June 62 SM3:199:3171

SZABO, S. SARKADI
"Elliptical Ring Under Axisymmetric, Linear Loading" (Aug 62 EM4:3220)

SZALATKAY, L. R.
Dsc (Apr 62 SM2:181:3105) of "Analysis of Seepage Problems" (Oct 61 SM5:91:2971)

SZIDAROVSZKY, JOHN
"Corrected Deflection Theory of Suspension Bridges" (Nov 60 ST11:25:2638)
Dsc: Arne Selberg (Aug 62 ST4:195:3254); S. O. Asplund (Aug 62 ST4:200:3254)
Clo: Aug 62 ST4:201:3254

TAKAGI, SHUNSUKE
"Plane Plastic Deformation of Soils" (June 62 EM3:107:3180)

TALL, L.
Dsc (Oct 62 EM5:171:3307) with F. R. Estuar of "Buckling Behavior Above the Tangent Modulus Load" (Dec 61 EM6:79:3019)

TALLARICO, L. T.
Dsc (June 62 ST3:325:3179) of "Vibration Analysis for Structural Floor Systems" (Oct 61 ST7:97:2958)

TAYLOR, DEAN M.
"Advances in Sludge Disposal in the Period from October 1, 1954, to February 1, 1960: Progress Report of the Subcommittee on Sludge Disposal of the Committee on Sewerage and Sewage Treatment of the Sanitary Engineering Division" (Mar 62 SA2:13:3075)
Dsc: R. E. Dodson (July 62 SA4:71:3206); Ralph Stone (July 62 SA4:71:3206); C. E. Keefer (Sept 62 SA5:49:3288)

TERZAGHI, KARL
Dsc (May 62 PP1:41:3151) of "Atomic Power, A Failure in Engineering Responsibility" (Oct 61 PP2:43:2975)

THIBODEAUX, MURPHY H.
See Herbert Beckman (May 62 WW2:125:3141)

THIRUVENGADAM, A.
Dsc (Jan 62 HY1:83:3044) of "Flume Studies of Flow in Steep, Rough Channels" (Nov 60 HY9:55:2653)

THOMAS, D. M.
Dsc (Aug 62 WW3:187:3252) of "Hurricane Studies of New York Harbor" (Feb 62 WW1:1:3046)

THOMAS, ROBERT L.
"Experimental Study of Beams on Elastic Foundations" (June 60 EM3:107:2505)
Dsc: L. F. Stephens (Dec 60 EM6:109:2691); M. T. Davisson (Feb 61 EM1:171:2751)
Clo: Apr 62 EM2:147:3107

THOMAS, ROBERT O.
Dsc (Mar 62 IR1:43:3085) of "Factors Affecting the Safe Yield of Ground-Water Basins" (Sept 61 IR3:63:2948)

THOMPSON, T. LEWIS
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THOMPSON, THOMAS F.
Dsc (Aug 62 SM4:190:3250) of "Influence of Geological Conditions on Uplift" (Dec 61 SM6:1:3008)
Dsc (Dec 62 SM6:245:3378) of "Cement Grouting: Progress Report of the Task Committee on Grouting of the Soil Mechanics and Foundations Division" (Apr 62 SM2:49:3098)

THORNTON-SMITH, G. J.
"All-Versine Highway Spiral Formulas" (Nov 62 SU1:41:3326)

THURMAN, ALLEN G.
"Model Studies of a Concrete Hyperbolic Paraboloid," with George J. Herman (Dec 62 ST6:161:3353)

TICHÝ, MILÍK
"Safety of Eccentrically Loaded Reinforced Concrete Columns," with Miloš Vorlíček (Oct 62 ST5:1:3292)

TINNEY, E. ROY
"Free Streamline Theory for Segmental Jet Deflectors," with Wilfred E. Barnes, Ottis W Rechard and Glenn R. Ingram (Sept 61 HY5:135:2935)
Dsc: Adolph A. Sutko (Jan 62 HY1:159:3044)
Clo: May 62 HY3:215:3144
"Terminal Shape of a Shallow Liquid Front," with D. L. Bassett (Sept 61 HY5:117:2934)
Dsc: D. A. Farrell (Mar 62 HY2:183:3087)
Clo: Sept 62 HY5:277:3290

TISON, G., JR.
Dsc (July 62 HY4:301:3209) of "Study of Scour Around Spur-Dikes" (Nov 61 HY6:23:2978)

TODD, DAVID K.
"Seepage Through Layered Anisotropic Porous Media," with Jacob Bear (May 61 HY3:31:2810)
Dsc: Serge Leliavsky (May 62 HY3:203:3144)

TOMMERUP, CARL C. H.
"Structural Design Practices for Tainter Crest Gates" (Dec 62 PO4:47:3348)

TOPRAC, A. A.
Dsc (Aug 62 ST4:221:3254) of "Economy of High Strength Steel Structural Members" (Dec 61 ST8:1:3010)

TORIDIS, T.
See R. K. Wen (Aug 62 EM4:27:3229)

TRIANDAFILIDIS, GEORGE E.
Dsc (Apr 62 SM2:172:3105) of "Displacement of Long Footings by Dynamic Loads" (Oct 61 SM5:45:2965)

TROLLOPE, D. HUGH
Dsc (Oct 62 SM5:41:3306) with Alan K. Parkin of "Pore Pressures in a Foundation Clay" (Apr 62 SM2:19:3097)

TSO, WAI KEUNG
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TUMA, JAN J.
"String Polygon Analysis of Frames with Straight Members," with John T. Oden (Oct 61 ST7:63:2956)
Dsc: Max Kurtz (Feb 62 ST1:205:3066)

TURNBULL, W. J.
Dsc (Dec 62 SM6:260:3378) of "Compacting a Dam Foundation by Blasting" (June 62 SM3:33:3160)

TURNER, EDWARD A.
"Uplift Resistance of Transmission Tower Footings" (July 62 PO2:17:3187)

TURNER, KENNETH M.
Dsc (Dec 62 IR4:65:3377) of "Evaporation at High Elevations in California" (June 62 IR2:33:3172)

TUTTLE, JAMES M.
"Surveys for the Lake Pontchartrain Bridge" (Jan 61 SU1:1:2702)
Dsc: Shu-t'ien Li (July 61 SU2:69:2870)
Clo: Nov 62 SU1:67:3337

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UMSTEAD, JOHN
Dsc (Dec 62 PO4:207:3374) of "South America's First EHV Transmission Line" (July 62 PO2:57:3192)

VANONI, VITO A.
"Sediment Transportation Mechanics: Erosion of Sediment: Progress Report by the Task Committee on Preparation of Sedimentation Manual of the Committee on Sedimentation of the Hydraulics Division" (July 62 HY4:109:3195)
"Sediment Transportation Mechanics: Introduction and Properties of Sediment: Progress Report by the Task Committee on Preparation of Sedimentation Manual of the Committee on Sedimentation of the Hydraulics Division" (July 62 HY4:77:3194)
Dsc: Charles D. D. Howard (Nov 62 HY6:235:3338)

VanSICKLE, DONALD
Dsc (Nov 62 HY6:186:3338) of "Unit Hydrograph Characteristics for Sewered Areas" (Mar 62 HY2:1:3069)

VAN TIENHOVEN, JAN C.
"Translation of Foreign Literature on Hydraulics: Fourth Progress Report of the Task Force on List of Translations of the Committee on Hydromechanics of the Hydraulics Division" (Mar 62 HY2:57:3072)

VAN VLACK, LAWRENCE H.
"Symposium on Teaching of Materials: Structures and the Teaching of Materials" (Aug 62 EM4:89:3248)

VEY, E.
Dsc (Oct 62 SM5:51:3306) of "Shear Strength of Sands During Rapid Loading" (Apr 62 SM2:99:3102)

VIESSMAN, WARREN, JR.
"Characteristics of the Inlet Hydrograph," with John C. Geyer (Sept 62 HY5:245:3285)

VILLEPIQUE, A. G.
"Civil Engineering and the Modern Steam-Electric Station," with W. G. S. Saville and G. S. Bingham (Sept 62 PO3:27:3267)
"South America's First EHV Transmission Line" (July 62 PO2:57:3192)
Dsc: John Umstead (Dec 62 PO4:207:3374)

VINCENT, GEORGE S.
Dsc (Feb 62 ST1:201:3066) of "Torsional Behavior of Suspension Towers" (Aug 61 ST6:1:2879)

VINCENZ, JEAN L.
Dsc (Jan 62 SA1:43:3043) of "Survey of Sanitary Landfill Practices: Thirtieth Progress Report" (July 61 SA4:65:2874)

VON GUNTEN, GLENN H.
"Fish Passage Through Hydraulic Turbines" (May 61 HY3:59:2812)
Dsc: J. F. Muir (May 61 HY3:205:2827)
Clo: July 62 HY4:233:3209
"John Day Lock and Dam: Planning and Site Selection," with John F. Bruce (July 62 PO2:35:3191)
Dsc: Roy F. Bessey (Dec 62 PO4:199:3374); W. Hiatt and R. E. MacDonald (Dec 62 PO4:203:3374)
Dsc (May 62 PO1:183:3149) of "Fish Handling Facilities for Baker River Project" (Nov 61 PO3:23:2993)

VON WILLICH, GIDEON P. R.
Dsc (Aug 62 ST4:251:3254) of "Critical Buckling Load on Large Spherical Shells" (Feb 62 ST1:111:3055)

VORLÍČEK, MILOŠ
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WAHLS, HARVEY E.
"Analysis of Primary and Secondary Consolidation" (Dec 62 SM6:207:3373)

WALDEN, HANS
Dsc (Feb 62 WW1:155:3068) of "Deep Water Wave Generations by Moving Wind Systems" (May 61 WW1:133:2821)

WALKER, F. C.
See W. G. Holtz (Dec 62 SM6:107:3361)

WALL, W. J.
"Stabilization Works on the Savannah River" (Feb 62 WW1:101:3063)

WALLACE, WILLIAM L.
"Displacement of Long Footings by Dynamic Loads" (Oct 61 SM5:45:2965)
Dsc: K. E. McKee (Feb 62 SM1:81:3061); T. K. Chaplin (Apr 62 SM2:171:3105); George E. Triandafilidis (Apr 62 SM2:172:3105)
Clo: Oct 62 SM5:39:3306

WANG, C. K.
Dsc (Oct 62 ST5:195:3309) of "Analysis of Multi-Span Gable Frames" (June 62 ST3:167:3164)

WARD, JOSEPH S.
"1961 Daniel W. Mead Prize for Students: Report of the Committee on Student Chapters of the Department of Conditions of Practice, ASCE" (May 62 PP1:1:3131)

WARNER, ROY F.
Dsc (Sept 62 HY5:335:3290) of "Contra Costa Energy Dissipator" (Mar 62 HY2:109:3077)

WASLEY, RICHARD J.
"Hydrodynamics of Flow into Curb-Opening Inlets" (Aug 61 EM4:1:2880)
Dsc: James A. Liggett (Dec 61 EM6:185:3030); John S. McNown and L. S. Yu (Apr 62 EM2:153:3093)
Clo: June 62 EM3:157:3173
"Uniform Flow in a Shallow, Triangular Open Channel" (Sept 61 HY5:149:2936)
Dsc: Edward J. Low (Jan 62 HY1:163:3044)
Clo: July 62 HY4:285:3209

WÄSTLUND, GEORG
"Stability Problems of Compressed Steel Members and Arch Bridges" (June 60 ST6:47:2512)
Dsc: S. O. Asplund (Jan 61 ST1:125:2512)
Clo: Dec 62 ST6:281:3376

WATHEN, THURMAN R.
See Ronald L. Hutchinson (Aug 62 AT1:77:3243)

WATTS, GEORGE M.
"Mechanical Bypassing of Littoral Drift at Inlets" (Feb 62 WW1:83:3058)

WAYNE, WARNER W., JR.
"Fish Handling Facilities for Baker River Project" (Nov 61 PO3:23:2993)
Dsc: G. J. Eicher (May 62 PO1:183:3149); Glenn H. Von Gunten (May 62 PO1:183:3149); F. L. Lawton (July 62 PO2:257:3208)
Clo: Dec 62 PO4:159:3374

WEDELLSBORG, BENDT W.
"Critical Buckling Load on Large Spherical Shells" (Feb 62 ST1:111:3055)
Dsc: Gideon P. R. Von Willich (Aug 62 ST4:251:3254); Chia-Tsun Chen (Aug 62 ST4:252:3254)
Clo: Dec 62 ST6:293:3376

WEIDNER, C. KEN
Dsc (May 62 PP1:42:3151) of "Atomic Power, A Failure in Engineering Responsibility" (Oct 61 PP2:43:2975)

WEIGHT, WILLIAM K.
See Ray L. Derby (May 62 PP1:37:3151)

WELLER, HARVILL E.
Dsc (May 62 WW2:201:3153) of "Bank and Levee Stabilization, Lower Colorado River" (Nov 61 WW4:17:2987)

WEN, R. K.
"Dynamic Behavior of Cantilever Bridges," with T. Toridis (Aug 62 EM4:27:3229)
Dsc: Rudolf K. Bernhard (Dec 62 EM6:157:3375)

WHIPPLE, WILLIAM, JR.
"Evaluation of Federal Hydroelectric Power Projects" (May 62 PO1:153:3148)
Dsc: Michael Spero (Dec 62 PO4:189:3374); Hibbert Hill (Dec 62 PO4:190:3374)
Dsc (Nov 62 WW4:117:3335) of "Land and Water Resource Planning in Texas" (Nov 61 WW4:41:2989)

WHITE, ARDIS
"Field Study of a Cellular Bulkhead," with James A. Cheney and C. Martin Duke (Aug 61 SM4:89:2902)
Dsc: Sidney M. Johnson (Feb 62 SM1:67:3061); Philip P. Brown (Feb 62 SM1:72:3061); B. N. Hoffmaster (Feb 62 SM1:75:3061)
Clo: Aug 62 SM4:177:3250

WHITE, JOHN J.
Dsc (Sept 62 CO2:101:3287) of "Construction Economy Through Contract Administration: Progress Report of the Special Committee of the Construction Division of the San Francisco Section" (Jan 62 CO1:1:3033)

WHITE, RICHARD N.
"Stability of Plates Under Partial Edge Loadings," with Willard S. Cottingham (Oct 62 EM5:67:3297)

WHITMAN, ROBERT V.
"Basic Experiment into Soil-Structure Interaction," with Ulrich Luscher (Dec 62 SM6:135:3366)
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Dsc: E. Vey (Oct 62 SM5:51:3306)
Dsc (Feb 62 SM1:49:3061) of "Impact Waves in Sand: Theory Compared with Experiments on Sand Columns" (June 61 SM3:1:2828)

WIEGEL, R. L.
"Diffraction of Waves by Semi-Infinite Breakwaters" (Jan 62 HY1:27:3039)
Dsc: F. L. Blue, Jr. (Sept 62 HY5:287:3290)
"Hovering Breakwater," with H. W. Shen and J. D. Cummings (May 62 WW2:23:3115)
Dsc: J. F. Ripken (Nov 62 WW4:137:3335)

WILD, PHILIP A.
"Towers and Foundations for Project EHV," with Emerson F. Haslam, Jr. (July 62 PO2:69:3193)
Dsc: Joseph R. Arena (Dec 62 PO4:209:3374)

WILDE, KENNETH K.
"Helicoptor Performance and Heliport Design" (Aug 62 AT1:1:3213)

WILKINSON, W. G.
Dsc (Mar 62 HY2:170:3087) of "Manifold Stilling Basin" (July 61 HY4:55:2863)

WILLEKE, GENE E.
Dsc (July 62 HY4:341:3209) of "Unit Hydrograph Characteristics for Sewered Areas" (Mar 62 HY2:1:3069)
Dsc (Sept 62 HY5:324:3290) of "Hydrologic Design of Culverts" (Mar 62 HY2:39:3071)

WILLETT, HURD C.
Dsc (May 62 HY3:231:3144) of "Cyclical Variations in World-Wide Hydrologic Data" (Nov 61 HY6:71:2982)

WILLIAMS, E. J., JR.
See T. A. Lane (Aug 62 WW3:1:3211)

WILLIAMS, GORDON R.
"Cyclical Variations in World-Wide Hydrologic Data" (Nov 61 HY6:71:2982)
Dsc: Hurd C. Willett (May 62 HY3:231:3144); Charles G. Abbot (May 62 HY3:235:3144); Steponas Kolupaila (May 62 HY3:237:3144); J. M. Mitchell, Jr. (May 62 HY3:243:3144); Roy K. Linsley (May 62 HY3:246:3144); Paul F. Keim (May 62 HY3:248:3144); N. J. Cochrane (May 62 HY3:251:3144); Phillip Z. Kirpich (May 62 HY3:253:3144); Robert B. Gallup (July 62 HY4:307:3209); Fred G. Fellows (July 62 HY4:308:3209)

WILLIAMS, J. J.
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OF THE

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